DELORME

Earthmate®
PN-60 GPS
User Manual

January 2012

Contents

Getting Started 3
Home Page 9
Map Page 10
Satellites Page 18
Compass Page 20
Trip Info Page 22
Find Page 24
Waypoints Page 29
Geocaches Page 33
Routes Page 38
Tracks Page 42
Profile Page 46
Sun/Moon Page 48
Tides Page 50
Hunt/Fish Page 51
Activities Page 52
Settings Page 53
File Management 58
Compass and Altimeter Calibration 59
Info Fields 61
Specifications and Warranty 64
Service Plan and Contact Info 66
Index 67

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Getting Started

This manual is for use with DeLorme Earthmate® PN-60/PN-60w GPS devices. References to "PN-60" include both devices unless otherwise indicated.

The Earthmate PN-60/60w is a complete out-of-the-box handheld GPS solution for all your outdoor activities.

- Navigate worry-free with included topographic maps of the U.S. and Canada.
- Add high-resolution aerial imagery for a unique GPS experience.
- Enjoy next-generation GPS features and performance.

What's in the box

- Earthmate PN-60 or PN-60w GPS
- Quick Start Guide
- DeLorme Topo North America® DVD
  OR
  DeLorme XMap® DVD, XMap User Manual, and XMap North America Topographic DVD
- USB cable
- 2 lithium batteries
- Lanyard

Where to get more help

You can find detailed help and information in several ways.

User Manuals

The latest version of this comprehensive user manual is available as a PDF download. **manuals.delorme.com**. The *inReach User Manual* and *SPOT Satellite Communicator User Manual* are also available for download.

Technical Support

A searchable knowledge base provides detailed technical information about current and past DeLorme products. **support.delorme.com**

Community Forums

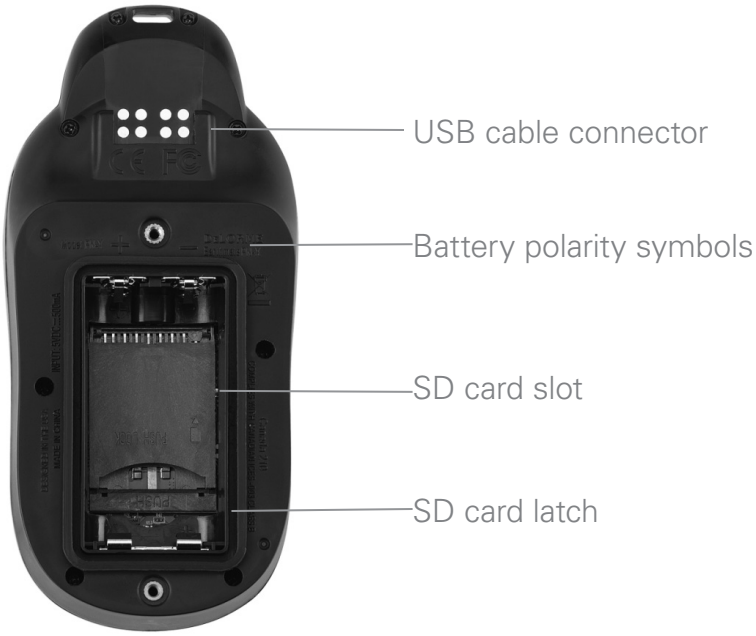
An open interactive community of DeLorme product users shares its experiences. DeLorme experts monitor the boards to participate and answer questions. **forum.delorme.com**

Mapping applications

Our desktop and web mapping applications include comprehensive help files.

Batteries and SD Card

- Use two AA batteries (Lithium is recommended; you can also use NiMH or alkaline) or a DeLorme rechargeable lithium-ion (li-ion) battery.
- When the PN-60 is using battery power, the battery indicator on the Home Page displays the percentage of battery life remaining.
- Remove the batteries when storing the PN-60 for a month or longer.
- A slot for an SD card (not included) is underneath the batteries inside the battery compartment. SD/SDHC/MMC cards up to 32GB are supported.



To	Do this
Install batteries and SD card	1. Unscrew the D-rings on the back of the device until you can remove the battery cover. 2. Optional. To insert an SD card, gently press down the SD card latch, insert the card in the slot, and press down the slot to close the latch. **Note** Do not lift the SD card latch as this could cause damage. 3. Insert the batteries according to the polarity symbols inside the battery compartment. 4. Replace the back cover and screw in the D-rings.
Check battery type	Go to **Settings > System > Battery Type** and make sure the correct battery type is selected; this ensures that the battery indicator displays the correct amount of battery life remaining.
View battery indicator	The battery indicator is on the Home Page (see page 9).
Charge DeLorme Li-ion battery in the PN-60	Install the battery in the device. To leave the device powered on while charging, power it on and connect the USB cable to the computer. On the Home Page, the battery indicator displays a plug. OR To put the device in charging mode, power it off and connect the USB cable to the computer. The light indicator below the bottom left corner of the screen flashes red. When the device is fully charged, the light is green.

Improve battery life

- Automatically turn off the backlight after 15 seconds; go to Settings > Display > Backlight Timer > 15 sec.
- Use the power saving option; go to **Settings > System > GPS Setting > Power Saving**.
- Turn off the GPS receiver when inside. Go to **Settings > System > GPS Setting > Off**.
  OR
  From the Satellites Page, go to **MENU > Turn Off GPS**.
- Use batteries with higher milliamp-hour (mAh) ratings.

Power

The **Power** button is at the bottom right corner of the button area.

- To turn on the PN-60, press and hold **Power** until you see the Welcome screen.
- To turn off the PN-60, press **Power** and hold for 1.5 seconds until the "Shutting down the device message" displays. Then, release the button.

Demo Mode

The first time you turn on the PN-60, it opens in Demo Mode.

- To view the demo, follow the on-screen instructions.
- To exit the demo, press **QUIT**.
- To turn off Demo Mode—from the first screen, press **ENTER** to clear the **Show at Startup** check box.
- To restore Demo Mode, go to **Settings > System > GPS Setting > Demo Mode**.

Buttons

Power

Use the **Power** button to turn the PN-60 on and off, lock the buttons, or to change the backlight settings.

- To turn on the device, press and hold the **Power** button until the Welcome screen displays.
  Note The first time you use the device it will be in Demo Mode.
- To turn off the device, press the **Power** button until the "Shutting down the device" message displays.
- To open the power options screen, quickly press and release the **Power** button. The following options are available:
  - » To change the backlight intensity, use the arrow keypad to adjust the backlight slider.
- To lock the buttons, select **Yes** when you see the "Lock the buttons?" message.
  - » To unlock the buttons, press **Power**. Then, select **Yes** when you see the "Unlock the Buttons?" message.

Tips

- Reduce the backlight intensity and decrease the timer to significantly improve battery life.
- The TFT screen is readable in direct sunlight or slanting light conditions.
- For more information about backlight intensity and the back light timer, see **Settings > Display** (page 54).

In/Out

Use the **IN/OUT** button to zoom the map or a track profile in or out or scroll through a list.

- Press **IN** once to zoom the map or a track profile in one level and show more detail.
- Press and hold **IN** to zoom the map in all the way.
- Press **OUT** once to zoom the map or a track profile out one level and show less detail.
- Press and hold **OUT** to zoom the map out all the way.
- Press **IN** or **OUT** to move forward or backward one page at a time when viewing lists.

Page

Press the **PAGE** button to move forward through the pages in the page order sequence. To add, remove, or reorder pages, go to **Settings > Page Order**. The default page sequence is determined by the current activity setting.

Menu

Press the **MENU** button to access functions for the page or screen you are using.

- From any page, press the **MENU** button twice to go to the Home Page.
- From any main menu, press the **MENU** button to go to the Home Page.
- The menu lists actions specific to the active page—select the item and press **ENTER**.

Find

The **Find** button is labeled with a magnifying glass. Press it to open the Find Page, where you can search the map for a point of interest, address, coordinates, and more. You can also search for waypoints and geocaches in an open waypoint or geocache file. For more information, see *Find Page* on page xx.

Mark

The **Mark** button is labeled with a pushpin. Use it to mark a waypoint at your current GPS location or, when panning, at the cursor location. Once you mark a waypoint, use its details page to manage it, view it on the map, or create a route to it. For more information, see Waypoints Page on page xx.

Arrow Keypad

Use the arrow keypad to move around pages and screens.

- Press once to move the map cursor left, right, up, or down in increments.
- Press and hold to pan the map in that direction.
- Highlight options in menus or lists. Press down to move to the next entry, press up from the first entry to go to the last entry, or press down from the last entry to go to the first entry.
- Highlight fields and highlight characters on the keyboard screen.
- Press and hold to quickly scroll through a menu or list.
- On the Map Page, press any arrow once to turn on the backlight without changing the map view.

Enter

Press the **ENTER** button to:

- Complete the selection of a menu option, entry, field, or screen button.
- Get detailed information about a point on the map, if available.

Quit

The function of the **QUIT** button depends on the status of the PN-60; some of the things you can do are:

- Exit a page or screen.
- Cancel actions (for example, panning).
- Close the keyboard and cancel changes.

- Delete individual points when measuring distance.
- Move backwards through the page order sequence.

On-screen Keyboard

The on-screen keyboard is available when you need to enter text, such as when editing a waypoint label, adding text to a comment field, or entering search parameters.

Use the arrow keypad to highlight the letter, number, symbol, or punctuation you want to use, and then press **ENTER** after each selection. When you are finished using the keyboard, highlight **OK** and press **ENTER**.

For existing text, enter a letter to replace the highlighted content. To keep the existing text but move the cursor to the beginning/end of the text, select ◀ to move the cursor to the beginning or ▶ to move the cursor to the end of the text.

Special Keys

◀ Move the cursor one space to the left without deleting a letter or number.

▶ Move the cursor one space to the right without deleting a letter or number.

↑ Change the case of the next letter (the active case is shown in the keyboard).
To use all caps, highlight and then press **ENTER** twice. Also changes numbers to additional symbols.

← Move the cursor one space to the left, deleting the character that was there.

↵ Insert a line break and move the cursor to the next line.

X Clear the content of the field being edited.

OK Accept the changes made to the text field and close the keyboard.

Keyboard Shortcuts

These button presses are keyboard shortcuts.

- **IN**–Delete the last character.
- **OUT**–Add a space.
- **Find**–Shift (for upper case and to show extra symbols).
- **Mark**–Highlight **OK**.
- **QUIT**–Exit the keyboard.
- **MENU**–Move the cursor's focus from the keyboard to the text box for faster editing. Press again to return to the keyboard.

Info Fields

The Map, Compass, Trip Info, and Profile Pages include fields of information that you can customize to suit your needs. You can even change which info fields display depending on your activity. For each activity, the info field types change for navigating or tracking (regular GPS use).

Tip To change the info fields for an activity navigation/tracking mode, put the device in that mode before you start making changes. It is easy to go back to the default settings at any time.

For more information about what info fields contain, see ***Info Fields*** on page 61. For more information about Activities, see ***Activities Page*** on page 52.

To	Do this
Hide or show info fields	On the Map Page, you can hide info fields for a full-screen view of the map or show them to get information. Go to **MENU > Info Fields** and select **Hide Info Fields** or **Show Info Fields**.
Arrange info fields	On the Map Page and Compass Page, you can change how info fields look on the screen. Go to **MENU > Info Fields > Arrange Info Fields** and select an option.
Change text size	On the Trip Info Page, you can change the size of the text that displays, which also changes the number of info fields. When the device is set to the small text option, it displays eight info fields (2 wide, 6 narrow)—when it is set to the large text option, it displays three wide info fields. Press **MENU**. The available text size option is preceded by "Switch to." Highlight the option and press **ENTER**.
Change info fields	On the Map, Compass, Profile, and Trip Info pages, you can customize which info fields display. 1. From the page, go to **MENU > Info Fields > Change Info Fields**. 2. Select the info field you want to change and press **ENTER**. A list of available info fields opens. 3. Select the new info field and press **ENTER**. 4. When you finish editing fields, press **QUIT**. The changes are saved until you change them again or restore them to the default settings.
Restore info fields	On the Map, Compass, Profile and Trip Info Pages, you can restore the default info fields for your current activity. From the page, go to **MENU > Info Fields > Restore Info Fields**.

Navigating or Tracking

Tracking is the normal state of the device when it has a GPS fi x. You can turn off track recording, but the device is still in tracking mode. When you follow a route on the device, you are navigating.

Home Page

The Home Page uses icons to give you a quick and easy way to locate the page on the device you want to view.

Use the arrow keypad to select an icon and then press **ENTER** to open that page. The Home Page also displays the GPS status (top left) and accuracy (top center), and the battery indicator (top right). The time and date are displayed at the bottom of the page.

- To quickly get to the Home Page, from any page on the PN-60, press **MENU** twice.
- To switch pages, press the right or left arrow until the page view changes.

To change the Home Page icon order

You can change the order of the Home Page icons for each activity. Go to **MENU > Customize Home Page** and press **ENTER**. Select an icon and press **ENTER**. The icon frame turns into arrows. Use the arrow keypad to move the icon, and then press **ENTER**.

Tracks

Waypoints

Geocaches

Compass

Map

Trip Info

Settings

Satellites

inReach

PN-60w only

SPOT

PN-60w only

Tides

Hunt/Fish

Sun/Moon

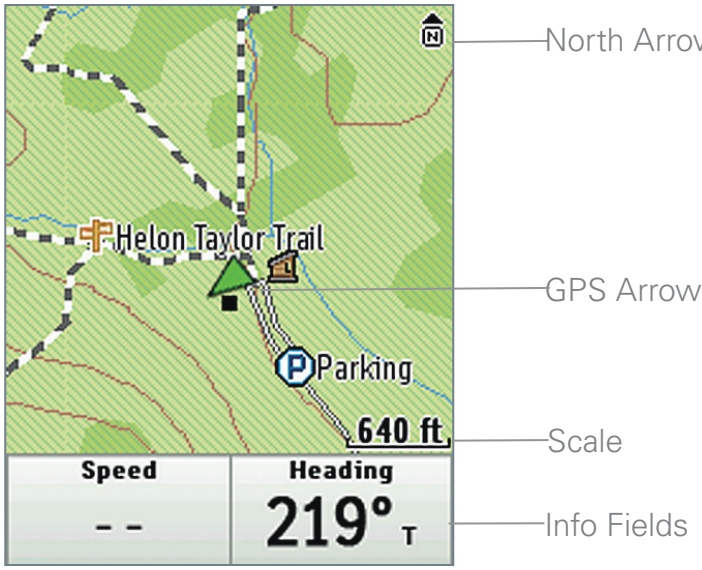
Routes

Profile

Activities

Map Page

The Map Page centers the map on your current location when the PN-60 has a 2-D or 3-D fix. When it does not have a GPS fix, the map displays your last GPS position, or, if panning the map, the map cursor position. For more information, see *GPS and WAAS Status* on page 18.



GPS Arrow

The GPS arrow displays on the map when GPS is turned on. The color of the GPS arrow depends on your GPS signal and the arrow points in the direction of the last known heading.

- **Flashing Red**–The device cannot obtain a GPS signal and is not tracking satellites.
- **Blue**–The device is in Track Playback mode or Simulate Navigation mode.
- **Yellow**–The device has a 2-D fix. If a 3-D fix has not been obtained, predicted ephemeris is available.
- **Green**–The device has a 3-D fix.

Tracking

When tracking satellites, a track line—also known as a breadcrumb trail—follows the GPS arrow as you move.

If you have turned off track recording, the track does not appear. For more information, see ***Tracks Page*** on page 42.

Scale and Orientation

For information about:

- Setting the scale, see ***Scale*** on page 15.
- Map orientation, see ***Orientation*** on page 14.

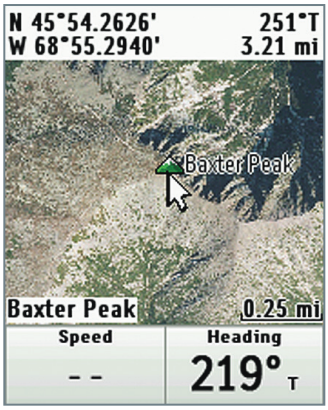
Panning the Map

There are two ways to pan the map. When you pan the map, the map cursor—a white arrow—shows your location.

- **Automatic panning**–When GPS tracking or navigating, the map automatically pans in the direction of travel. The map does not automatically pan when the map cursor is visible. Press **QUIT** to remove the map cursor and return to automatic panning.

- **Manual panning**–To manually pan the map, use the arrow keypad to move the cursor in the direction you want to view.
  - » Use single presses to move the cursor in increments.
  - » Press and hold to quickly pan to a new location.
  - » Hold the cursor at the edge of the screen to keep panning in that direction; the map will move to the new location.
  - » Press **QUIT** to center the map on your current location.

As you pan, a text field at the top of the map displays information about the cursor location. When you stop the cursor over an object, the field in the bottom left corner displays the object name.



Getting Location Information

For information about objects at your current GPS location, press **ENTER**.

OR

Pan the map to a new location. When you stop the cursor over an object, the object's name is displayed in the bottom left corner of the map. Press **ENTER**.

- For single objects, the object details page displays. From this page, you can mark a waypoint, view the object on the map, or route to the object.
- For multiple objects, the Multiple Objects screen displays a list of the objects at that location; user-created objects (such as waypoints) appear at the top of the list. Select an object and then press **ENTER** to view its details page.

Info Fields

The Map Page includes fields of information that you can customize to suit your needs. You can even change which info fields display depending on your activity. For each activity, the info field types change for navigating or The Map Page includes fields of information that you can customize to suit your needs. You can even change which info fields display depending on your activity. For each activity, the info field types change for navigating or tracking (regular GPS use). To access the Info Fields options, go to **MENU > Info Fields**. For more information, see *Info Fields* on page 61 and *Activities Page* on page 52.

Measure Distance

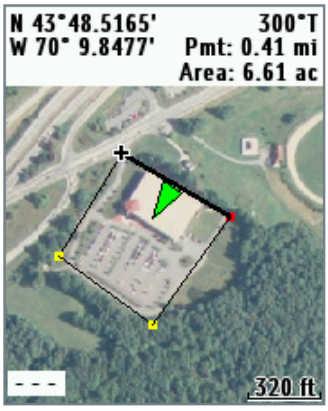
Use the measurement tool to measure the distance of a line or the perimeter and area of a polygon on the map.

To measure distance

From the Map Page, go to **MENU > Measure Distance**. Use the arrow keypad to move the cursor to the area on the map where you want to place the first point of the line or polygon and press **ENTER**. Repeat for each point.

- To undo a point, press **QUIT**.
- To make a polygon, you must close the shape. Place the last point on top of the first point by hovering the cursor over the start location and pressing **ENTER** to snap the point and close the polygon.

While you are measuring distance, the pan location information that displays in the top right corner of the screen changes to display the heading from the last measurement node to your current GPS location, the leg distance, and the total distance from the last measurement node to the first measurement node. Once you close a polygon, it displays the area.



Turn Imagery On/Off

When you have added map packages that include imagery to your PN-60, you can quickly turn the imagery off or on. From the Map Page, go to **MENU > Turn Imagery On** or **Turn Imagery Off**.

Map Setup

Use the Map Setup page to customize the map. You can change the order of data layers; show or hide maps and imagery; choose map orientation and scale; and determine how information displays on the map.

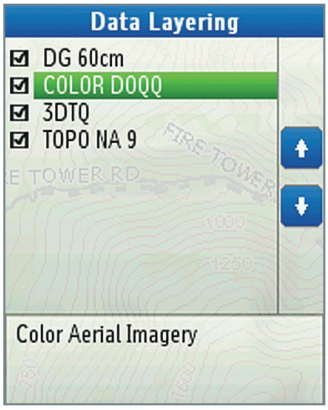
From the Map Page, go to **MENU > Map Setup**.

Data Layering

The base map that is pre-loaded on the PN-60 shows high-level world coverage, as well as more detailed coverage for North America. You can add maps, data, imagery, draw files, and more to your device to supplement the base map. When you add different types of maps to the same area, you can customize the order in which the layers appear.

For more information about the types of data you can add to your PN-60, see *Detailed Map Data* on page 14.

To manage individual map packages that you have added to your device, see *Data Management* on page 13.



Only the data types you have on your device show in the Data Layering list.

The default order for layering data is:

- GIS layers by name (XMap only)
- Draw Layers
- Public Lands
- User Raster Data (XMap only)
- Custom Raster Data (XMap only)
- ImageReg (XMap only)
- DigitalGlobe® 30cm (DG 30cm)
- High-resolution City Imagery (Hi-Res Cities)
- DigitalGlobe 60cm (DG 60cm)
- DigitalGlobe 1m (DG 1m)
- Color Aerial Imagery (Color DOQQ)
- Aerial Imagery (DOQQ)
- USGS Quads (3DTQ)
- Canadian 1:50K Topographic Sheets (Canadian 1:50K)
- NOAA Nautical Charts (NOAA Charts)
- Satellite Imagery (SAT10)
- XMap Topographic Data (XMap only)
- DeLorme Topographic Data
- DeLorme World Base Map 7

To layer data

Use the Data Layering option to select the types of data you want to view on your PN-60 and the order in which you want data to display. From the Map Page, go to **MENU > Map Setup > Data Layering** to view a list of all the types of data you have stored on your device's internal memory or on an SD card in the device; this may include data that is not available for the area you are viewing. When you highlight an item, the full name of the data type shows in the box at the bottom of the screen.

To	Do this
Show a type of data	Select the check box next to it
Hide a type of data	Clear the check box next to it.
Select/clear all check boxes	Go to **MENU > Select All** or **Deselect All**
Change the order in which data is layered	Highlight the item you want to move, then use the arrows on the right side of the screen to move the item up or down in the list. If two data types have identical zoom level settings, the one higher in the list has precedence.
Reset default layer settings	Go to **MENU > Restore Layer Defaults**
View layer details	Highlight layer and go to **MENU > Layer Detail**

Data Management

The PN-60 stores routes and the base map in its internal memory. You can save user maps—including the detailed DeLorme Topo North America maps, waypoints, geocaches, and tracks in the device's internal memory or on a removable SD card.

To view and manage memory information, go to **Settings > System > Memory Use**.

After you add a map—also called a map package or a map file—from a compatible DeLorme mapping program or the DeLorme Online Map Center to the PN-60, you can show or hide it on the device; view details about it, including where it is stored; or delete it. To change the priority of how different types of map data are displayed, see *Data Layering* on page 12.

For more information about the types of data you can add to your PN-60, see *Detailed Map Data* on page 14.

To manage maps and data

From the Map Page, go to **MENU > Map Setup > Data Management** to view a list of the map packages you have stored in your device's internal memory or on an SD card in the device. When you highlight an item, the type of data and location shows at the bottom of the screen.

To	Do this
Show the map package	Select the check box next to it
Hide the map package	Clear the check box next to it
Select/clear all check boxes	Go to **MENU > Select All** or **Deselect All**
View the map	Highlight map package and go to **MENU > View Map**
View details for the map package	Highlight map package and go to **MENU > Data Detail**
Delete a map package	Highlight map package and go to **MENU > Data Detail > Delete**

Detailed Map Data

Your PN-60 comes with a base map showing overview- level worldwide coverage, as well as North American interstates and routes, state routes, and major roads. While this provides a great view of a large area, you need a detailed view of a smaller area for hiking, geocaching, and other activities.

You can transfer detailed maps and map packages to the PN-60 using:

- **PN-Series detailed map DVDs**–Included with your device are DVDs with detailed pre-formatted DeLorme Topo North America data. This data includes detailed routable road and topographic data for the U.S. and Canada and major road data for Mexico. Insert the DVD for your area of interest in your computer's DVD drive and follow the on-screen instructions to copy the maps you want onto your device. **Note** Elevation data and land cover is not available for Mexico.
- **Compatible DeLorme mapping software**–Instructions for sending map packages, data, draw layers, and more to your PN-60 vary by application. For more information, see the mapping application's Help.
- **Map Library**–Use the NetLink tab in your DeLorme mapping software or the DeLorme Online Map Center (**data.delorme.com**) to download many types of imagery and data, such as satellite imagery, aerial imagery, USGS 1:24K Topo Quad maps, Canadian 1:50K topographic sheets, NOAA nautical charts, and more. With an annual Map Library subscription, you can download unlimited imagery and data for the entire year—the maps are yours to keep.
- **Non-DeLorme maps**–DeLorme's professional GIS software, XMap, allows you to register non-DeLorme maps and transfer them to a PN-60.
- **Navionics lake maps and marine charts**—Add fishing maps and boating maps and charts to your device with Navionics SD cards. For more information, see *Navionics* on page 16.
  Tip A map package is a dataset you create for an area of interest that you can layer with DeLorme map data and other map datasets available from the NetLink Map Library.

Orientation

You can set the map to rotate as you move.

To change the map orientation

From the Map Page, go to **MENU > Map Setup > Orientation** and select the map orientation from the drop-down list.

Option	What it does
North Up	North is always at the top of the map screen
Heading Up	The direction in which you are travelling is always at the top of the map screen. The North Arrow displays in the top right corner of the map screen.
Course Up	The direction of the finish of your route is always at the top of the map screen. The North Arrow displays in the top right corner of the map screen when navigating.

If you want Heading Up or Course Up to automatically switch to North Up above the specified scale (depends on the units of measure you have set), select the **North Up above... scale** check box.

Map Style

Topo View displays all topographic data as it was saved in the map package; this is the default view. Street View hides the contours and land cover for a clean road map

Hybrid Map

Select the **Show Hybrid Map** check box to show points, lines, and labels on top of imagery. Hybrid maps are visible at scales of 640 feet and higher. From the Map Page, go to **MENU > Map Setup > Show Hybrid Map.**

Map Point Management

You can customize how points of interest (POIs), waypoints, geocaches, and reference points for the SPOT Satellite Communicator and inReach satellite communicator display on the map.

From the Map Page, go to **MENU > Map Setup > Map Point Management**. Select each option and then select how you want that type of map point to appear on the map. Select the **Hide Logged Caches** check box if you do not want logged geocaches to appear on the map.

Scale

Use the scale option to set the type of scale you want to use on your maps.

To set the scale

From the Map Page, go to **MENU > Map Setup > Scale**; from the drop-down list, select an option.

Option	What it does
Bar	Represents a given length on the map compared to an actual length.
Zoom	The DeLorme term for map detail level. Each time the zoom level increases, the scale doubles.
Ratio	Shows a ratio of a unit on the device compared to the actual unit.

Other Menu Options

When navigating, viewing a route on the map, or simulating a route, additional options are available on the Map Page menu.

Option	What it does
View Comment	When navigating to a waypoint or other point, quickly view its comment (if available). The comment for the most recently viewed point is displayed.
View Geocache Info	When navigating to a geocache, view the geocache details page, description, or hint. For more information, see *Geocaches Page* on page 33.

Option	What it does
Log Your Geocache Find	When navigating to a geocache, quickly log geocaches, write field notes, and pick your next cache. For more information, see ***Managing Geocaches*** on page 35.
Route Options	When navigating, stop navigating, get back on track, or switch the route type. For more information about route options, see ***Route Settings*** on page 38.
View Directions	When navigating or simulating a route, open the Directions Page.
Hide Route	Hide a route you are viewing on the map (when not navigating or simulating).
Route Simulation Options	When simulating a route, stop route simulation or change the speed.

Navionics

You can use Navionics® HotMaps Premium Lake Maps and GOLD+ Marine Charts with your PN-60. The charts are available on SD cards that you insert into your devices. For more information about the charts that are available, visit **navionics.com**.

General Info

- Navionics information appears on the device only when you have a Navionics SD card in your device.
- You cannot save maps or data to a Navionics SD card—the memory on the card is unavailable.
- The Navionics data overlays the DeLorme maps on device—the DeLorme maps are used for routing and Find.
- Tracks, routes, waypoints, and geocaches display over the Navionics charts.
- When you pan the map and select an object (other than those listed above) with the map cursor, Navionics information is displayed.

Turn Charts On/Off

You can quickly turn Navionics charts on or off. The Navionics chart closest to the map center automatically displays; if it doesn't, select it from the Chart list on the Navionics Setup page.

From the Map Page, go to **MENU > Turn Charts On** or **Turn Charts Off**.

Note This menu option controls the Show Charts and Show Boundaries check boxes on the Navionics Setup page.

Navionics Setup

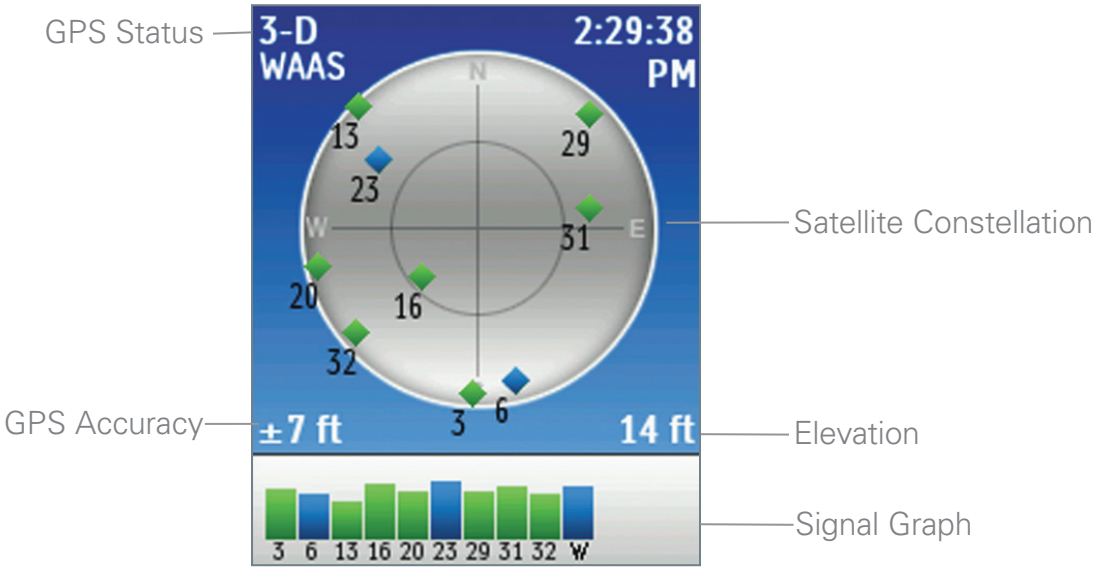
Customize the way Navionics charts appear on your PN-60. To access all of these options, go to **MENU > Map Setup > Navionics Setup**.

To	Do this
Select a chart	From the Navionics Setup page, select the chart or map you want to use from the **Chart** drop-down list.
View the selected chart or map	Select **View Chart**.
Show charts or boundaries	Control how you view charts and their boundaries on the map—view charts alone, boundaries alone, or both together. • To show charts, select the **Show Charts** check box. • To show boundaries, select the **Show Boundaries** check box.

To	Do this
Hide charts by map scale	From the **Hide Charts** drop-down list, select the scale above which you want to hide the charts.
Set chart detail level	From the **Chart Details** drop-down list, select **High** or **Low**.
Show or hide contours	From the **Hide Contours** drop-down list, select **Show All** or select a level above which to view contours.
Set the safety depth	From the **Safety Depth** drop-down list, select the safety depth or select **Off**.
Set the presentation mode	From the **Presentation Mode** drop-down list, select **US** or **International**.
Show the depth in fathoms	To show chart depths in fathoms instead of feet or meters, select the **Show Depth in Fathoms** check box.
Restore the default settings	To restore the default Navionics Setup settings, select **Restore Default Settings**.

Satellites Page

The Satellites Page displays GPS and satellite information, time, and elevation.



Constellation and Signal Graph

Both the satellite constellation and the satellite signal graph display visible satellites and their identifying numbers. The satellite constellation depicts each satellite's position and the signal graph bars indicate the strength of each satellite signal.

The icons in the satellite constellation and the bars in the signal graph are color-coded based on the quality of the data they are transmitting:

- **Gray**–Satellites have not been located but they are shown in the constellation because they appear in the PN-60's almanac data.
- **Red**–The receiver is tracking the satellite, but it is not using it to navigate.
- **Yellow**–The receiver is tracking the satellite, predicted ephemeris data is available when a 3-D fix has not been obtained, and the satellite is being used for navigation.
- **Green**–The receiver is tracking the satellite, ephemeris data is available, and the satellite is being used for navigation.
- **Blue**–The receiver is tracking the satellite, ephemeris data is available, the satellite is being used for navigation, and WAAS corrections are available.

GPS and WAAS Status

The Global Positioning System (GPS) is a system of satellites that orbit the earth to provide position and navigation information. The Wide Area Augmentation System (WAAS) is system of satellites and ground stations that correct GPS signals to improve accuracy.

The GPS status is based on the satellite acquisition status.

- **GPS Off**–The GPS receiver is turned off.
- **No Fix**–The GPS does not have sufficient satellite data to determine your current GPS position.
- **2-D**–The GPS connection is successful, but the connection quality is not as good as a 3-D fix. Move your receiver to another location to get better reception.

- **3-D**–The GPS is receiving sufficient satellite data (horizontal position and elevation) to determine your location.
- **WAAS**–When "WAAS" appears below 2-D or 3-D, the PN-60 has a WA AS connection (available only in North America) that provides up to five times greater positional accuracy than a regular 2-D or 3-D connection.

To set the current location

If it takes a long time for the PN-60 to obtain a 2-D or 3-D fix, verify it has a clear view of the sky. Be sure that trees, buildings, and other obstacles are not blocking the device.

If the device still cannot obtain a 2-D or 3-D fix, go to **MENU > Set Current Location**. When the Map Page displays; pan the map to your current location and press **ENTER**.

To turn off GPS

You can use many features on the PN-60 without a GPS fix. When the GPS receiver is turned off, "GPS OFF" displays on the screen and all satellites are removed from the satellite constellation.

There are two ways to turn off the GPS receiver.

- From the Satellites Page go to **MENU > Turn Off GPS**. To turn the GPS on again, go to **MENU > Turn On GPS**.
- From the Home Page, go to **Settings > System > GPS Setting > GPS Off**. To turn the GPS on, select **Normal** or **Power Saving**.

The GPS receiver is temporarily turned off when in simulation mode (during track playback and navigation simulation).

Time

You can change the time format, time zone, and manually set Daylight Saving Time. The time is automatically set from GPS satellites and is highly accurate.

To change the time settings, from the Home Page, go to **Settings > Time**.

GPS Accuracy

In the lower left corner of the Satellites Page, the GPS accuracy displays. This is the calculated accuracy of the GPS, expressed in distance. The actual location is within plus or minus the distance indicated of the location represented by the GPS.

On the Map Page, GPS accuracy is represented by a circle with a radius equal to the GPS accuracy; your actual location on the map is within the circle.

Any buildings, natural structures, or heavy foliage that obstruct the GPS antenna's view of the sky may prevent satellite signals from reaching the receiver and decrease the accuracy of your position. Placing the PN-60 GPS in a jacket or backpack pocket should not affect positional accuracy.

Elevation

The elevation is based on the current barometric altimeter reading. When the Auto Calibrate Altimeter option is selected, you may see the word "Calibrating" in the bottom right corner of the screen while the barometer adjusts—typically 2-3 minutes. If you are using the Elevation: Barometer info field on any page, you may see a red exclamation point in the field while the altimeter adjusts.

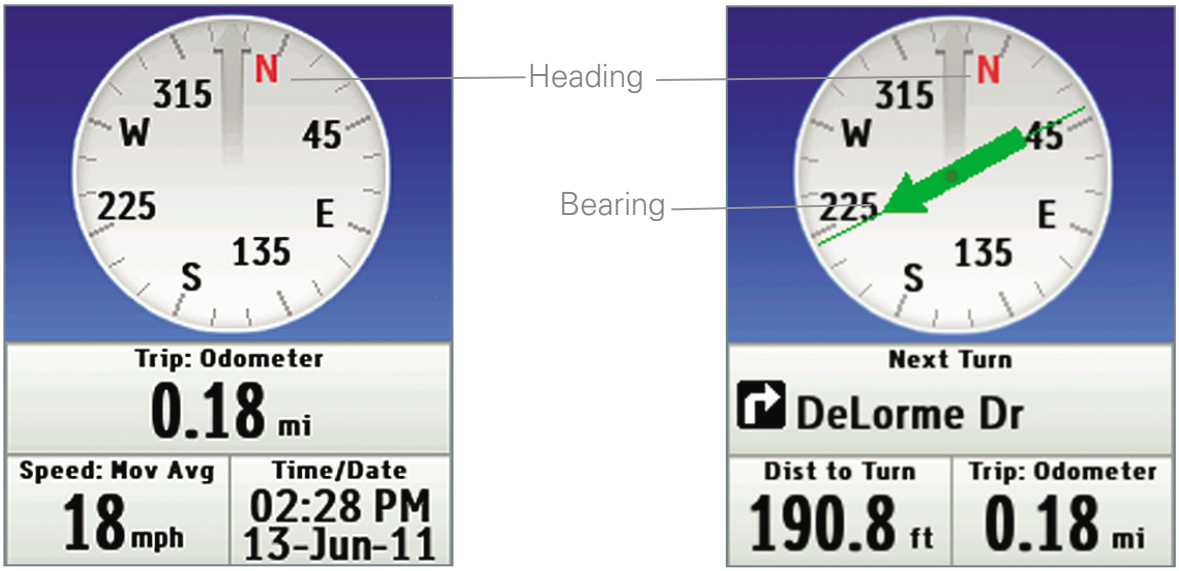
For more information about calibrating the altimeter, see *Altimeter Calibration* on page 59.

Compass and Altimeter

Calibrate the compass and altimeter from the Compass Page menu or the Satellites Page menu. The Compass & Altimeter option on the Settings Page has additional sensor settings.

Compass Page

Use the Compass Page's graphic compass to help you find your destination. The PN-60 uses GPS to determine compass readings when the device is moving. It also has an electronic compass for use when the device is stationary or moving below 1.5 mph.



The image on the left shows how the Compass Page looks during normal GPS use, when you are tracking. The image on the right shows how the page looks when you are navigating a route.

Bearing Arrow

As you move, the compass rotates so that the heading is always up. When you are navigating a route, the green bearing arrow displays on the compass to show you the direction you should be going.

Electronic Compass

The PN-60's electronic compass shows your direction when you are stationary or almost motionless. When your speed is 1.5 mph or higher, the compass reading is based on your GPS location information.

When the electronic compass reading is not accurate, "Poor Accuracy" displays in the bottom right corner of the screen, and a red exclamation point appears in the Heading info field. When you see this indicator, you may want to calibrate the compass unless you know the inaccuracy is caused by a temporary event, such as being near power lines or near a magnetic field caused by a car. You may want to turn off the electronic compass when you are in an area with magnetic interference. For more information, see ***Compass and Altimeter Calibration*** on page 59.

Tip

Calibrate the compass when you change the batteries in the PN-60.

Calibrating Sensors

You can calibrate the PN-60's electronic compass and barometric altimeter with the Calibrate option on the Satellite Page menu, the Compass Page menu, and the Settings > Compass & Altimeter menu. The Settings > Compass & Altimeter options allow you to turn the electronic compass, the barometric altimeter, and the auto-calibrate altimeter option on or off. For more information, see ***Compass and Altimeter Calibration*** on page 59.

Info Fields

The Compass Page includes fields of information that you can customize to suit your needs. You can even change which info fields display depending on your activity. For each activity, the info field types change for navigating or tracking (regular GPS use).

To access the Info Fields options, go to **MENU > Info Fields**. For more information, see *Info Fields* on page 61 and *Activities Page* on page 52.

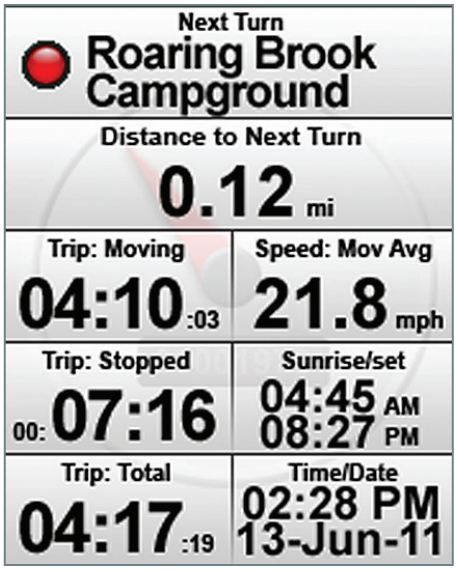
Other Menu Options

When navigating, viewing a route on the map, or simulating a route, additional options are available on the Map Page menu.

Option	What it does
View Comment	When navigating to a waypoint or other point, quickly view its comment (if available). The comment for the most recently viewed point is displayed.
Log Your Geocache Find	When navigating to a geocache, quickly log geocaches, write field notes, and pick your next cache. For more information, see *Managing Geocaches* on page 35.
View Directions	When navigating or simulating a route, open the Directions Page (see page 41).
Route Simulation Options	When simulating a route, stop route simulation or change the simulation speed.

Trip Info Page

The Trip Info Page displays info fi elds that you can customize to manage your trips..



To reset the trip information

Use the Reset Trip Info option to reset the trip values, speed information, elevation, and the device odometer.

Track recording is not reset. If you want to keep track of all your travels on your device, clear the **Device Odometer** check box before you reset your information.

From the Trip Info Page, go to **MENU > Reset Trip Info**.

- To reset an option, select the check box next to it.
- To exclude an option from being reset, clear the check box next to it. Then, select **Reset Now**.

Info Fields

The Trip Info Page includes fields of information that you can customize to suit your needs. You can even change which info fields display depending on your activity. For each activity, the info field types change for navigating or tracking (regular GPS use).

To access the Info Fields options, go to **MENU > Info Fields**. For more information, see *Info Fields* on page 61 and *Activities Page* on page 52.

Other Menu Options

When navigating, viewing a route on the map, or simulating a route, additional options are available on the Map Page menu.

Option	What it does
View Comment	When navigating to a waypoint or other point, quickly view its comment (if available). The comment for the most recently viewed point is displayed.
Log Your Geocache Find	When navigating to a geocache, quickly log geocaches, write field notes, and pick your next cache. For more information, see *Manage Geocaches* on page 35.
Route Options	When navigating, stop navigating, get back on track, or switch the route type. For more information about route options, see *Route Settings* on page 38.

Option	What it does
View Directions	When navigating or simulating a route, open the Directions Page (see page 41).
Route Simulation Options	When simulating a route, stop route simulation or change the simulation speed.

Find Page

Use the Find Page to search for addresses, points of interest (POIs), waypoints, geocaches, coordinates, and more.

To view the Find Page, press the **Find** button . There are two pages of Find icons—to switch pages, press the right or left arrow on the arrow keypad until the view changes.

Search Methods

The Waypoints, Geocaches, POIs, Trails, and All categories include Near and Name options that allow you to refine your search. The Draw Layer category also includes a Name option.

Near

The Near drop-down list allows you to focus your search. The following options are available:

Option	What it does
Map Center	Search when panning the map or viewing a location other than the GPS location.
Recent	Select a location from the **Recent** list.
Favorite	Select a location from items you added to your Favorites.
Other Location	Select a location using the Places search. When you select a location using this option, it is saved in the drop-down list below Other Location.

Name

You can enter a name or a partial name using characters that the name begins with or contains. Highlight the name field and press **ENTER** to open the on-screen keyboard.

- To switch the search type, go to **MENU > Switch to Name Contains** or **Switch to Name Begins With**. The device is set to the option that is not showing.
- To clear the Name field, go to **MENU > Clear All Fields**.

Find Categories

The Find Page is divided into categories to help you narrow your search. Use the arrow keypad to select an icon and then press **ENTER** to open that page.

Favorites

The Favorites category shows a list of points you have saved as favorites. Adding a point that is in an opened GPX file or a in a GIS layer creates a copy of that point in the Favorites list so that you can still search for it when the file is closed. To edit a point or GIS layer, that file must be open.

To	Do this
Add an item to Favorites	Go to **MENU > Add to Favorites** to save points to your Favorites from any point details page or Find search result. Note that for waypoints and geocaches, the point file must be open to edit the point when you access it from your Favorites.
Delete an item from Favorites	Select the item to open its details page. Then, go to **MENU > Delete from Favorites**.
Clear the Favorites list	Go to **MENU > Clear All Favorites** to clear all items from the Favorites list.

Recent

The Recent category shows the 50 most recently found search results. The most recent item is listed first.

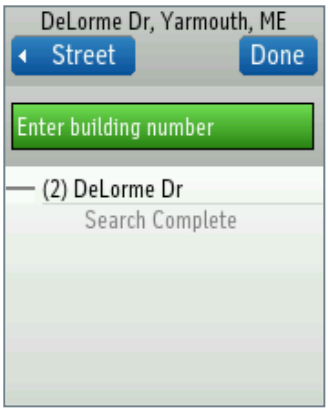
To clear the Recent list

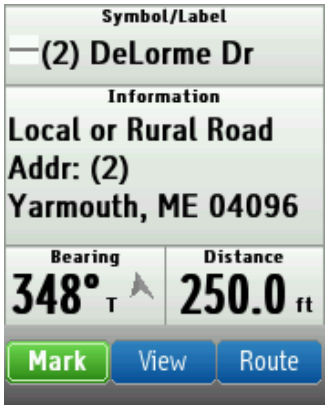
To clear all items from the Recent list, go to **MENU > Clear All Favorites**.

Places

The Places category allows you to search for a location. The more search criteria you enter, the further you can narrow your search. The initial view is the city or town closest to the map center.

- To complete the search at the current level, select the **Done** button. A details page will display. This option is not available at the Country level of detail.
- To enter a new search term, highlight the text box and press **ENTER** to open the on-screen keyboard. As you start entering the information, matches will appear in the text box. Select **OK** to accept a suggestion.
- To narrow a search, select an item from the results list and press **ENTER**. The view will change to the next level down and you can refine your search.
- To expand a search, select the button in the top left corner of the screen. The view will change to the next level up and you can change or expand your search.





Waypoints

You can search for waypoints in an open waypoint file.

1. From the **Symbol** drop-down list, select a symbol or select **All**.
2. Use the **Near** and **Name** drop-down lists to further narrow your search.

Geocaches

You can search for geocaches in an open geocache file. The Query option allows you to fine-tune your search.

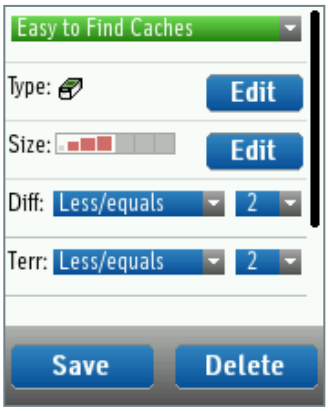
1. From the **Query** drop-down list, select **All Caches**, select a query, or create a new query.
2. Use the **Near** and **Name** drop-down lists to further narrow your search.

Queries

Use the query editor to create a new query or edit existing queries. The query editor uses the same type of structure as pocket queries from Geocaching.com.

To edit or create a query

1. From the Geocaches Find page, go to **MENU > Edit Queries**.
2. From the query drop-down list, select the type of query to edit or select **New Query**.
3. To change the cache type, select the **Edit** button next to **Type**. Select the check box for each cache type to include and then press **QUIT**.
4. To change the cache size, select the **Edit** button next to **Size**. Select the check box for each size to include and then press **QUIT**.
5. From the **Diff** and **Terr** drop-down lists, select the options to include.
6. Select the **Have Travel Bugs** check box to include caches with travel bugs and trackables.
7. Select the **Use Cache ID** check box to include only those caches with a cache ID.
8. Select **Save**. Enter a name for the query and select the location to save it.



Points of Interest (POIs)

From the POIs drop-down list, select a category.

- For the Businesses, DeLorme Atlas Pts, and Natural Features categories, narrow your criteria by making a selection from the **Type** drop-down list or select **All**.
- Use the **Near** and **Name** drop-down lists to further narrow your search.

Trails

Use the **Near** and **Name** drop-down lists to search for trails.

Draw Layer

To search draw layers, you must make sure they are active on the device. From the Map Page, go to **MENU > Map Setup > Data Layering** and select the **Draw Layers** check box.

- From the **Layer** drop-down list, select the layer to search or select **All**.
- Use the **Name** drop-down list to further narrow your search.

GIS Layer

XMap users only

To search GIS layers, you must make sure they are active on the device. From the Map Page, go to **MENU > Map Setup > Data Layering** and select the **GIS Layers** check box.

- From the **Layer** drop-down list, select the layer to search or select **All**.
- Use the **Name** drop-down list to further narrow your search.

Coordinates

The coordinate for your GPS location or the map cursor location displays.

To change the coordinates, select the coordinate field at the top of the page and press **ENTER**. Using the up and down arrows on the arrow keypad, change the highlighted character. Use the right and left arrows to move to a different character. Press **ENTER** when finished making changes.

Search Results

To view the results list

To view results, select an item in the list and use the arrow keypad to scroll through the list, or press the **IN/OUT** button to go forward or backwards a page at time. The maximum number of results for each search is 100.

To view search result details

To view the details for an item on the list, select it. The search result details page displays.

There are several things you can do from the search result details page.

Option	What it does
Mark a waypoint	On the search result details page, select **Mark**. The result is saved as a waypoint and the waypoint details page displays; you can edit the information.

Option	What it does
View/center a search result on the map	On the search result, waypoint, or geocache details page, select **View**. The Map Page displays and is centered on the search result. Press **QUIT** to return to the details page.
Create a route to a search result	You can navigate directly to the search result from your current location. 1. On the search result details page, select Route. 2. On the route details page, select Navigate. Note When you are creating a route from a geocache details page, go straight to step 3. 3. Select **Hike** or **Drive**. The route calculates and the Map Page opens in navigation mode.
Add a search result to Favorites	From the details page, go to **MENU > Add to Favorites** to add a search result to your Favorites on the Find Page.
Send point with inReach or SPOT	If you have a connected inReach satellite communicator or SPOT Satellite Communicator, you can send a waypoint as a reference point using that device; see the device user manual for more information (**manuals.delorme.com**). From the point details page, go to **MENU > Send Point with inReach or Send Point with SPOT**.

Waypoints Page

A waypoint is a location that you mark and store using the PN-60. You can also transfer waypoint files to the PN-60. Waypoints are identified by coordinates, and you can assign a symbol, name, and other information to them. The Waypoints Page lets you view a list of the active waypoints on your PN-60. Waypoints are active when you:

- Open a waypoint file
- Mark a new waypoint

For information about geocache waypoints, see ***Geocaches Page*** on page 33.

Managing Waypoint Files

Waypoints are managed using GPX files; each file can contain up to 1,500 waypoints. For more information about GPX files, see ***File Management*** on page 58.

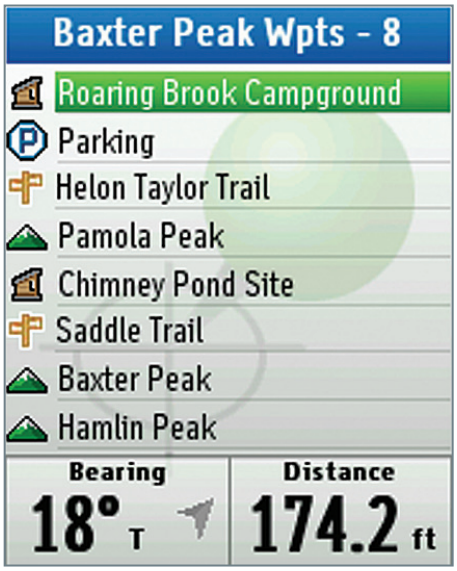
Tip

Use Find to quickly locate a waypoint in the open waypoint file. For more information, see ***Find Page*** on page 24.

Waypoints List

The Waypoints Page displays a list of waypoints from the GPX file open on your device. The file name and the number of waypoints in the file appear at the top of the page. When you highlight a waypoint in the list, the Bearing and Distance info fields display measurements as follows:

- From the GPS position when the device has a GPS fix.
- From the cursor location if you are manually panning the map.



- From the map center if the GPS receiver is turned off.

Sorting the List

There are two ways to sort your list of waypoints—by distance from your GPS location or alphabetically by name.

To change the sorting method, press **MENU**, highlight the sorting method to use and press **ENTER**. If the file has a large number of waypoints, press **ENTER** to interrupt the sorting process and see a partial list.

Symbols

The waypoint symbols available on the PN-60 match the PN-Series symbol set in your DeLorme mapping application. The symbol set includes geocaching symbols (these are at the end of the symbol list). To ensure a waypoint displays on the Waypoints Page, use a waypoint symbol. If you use a geocaching symbol, the waypoint will display only on the Geocaches Page. See the symbol chart at the end of the manual.

File Menu

Use the File menu to manage waypoint GPX files stored in the PN-60's internal memory or on an SD card in the device, as well as waypoints you create on the device. For more information about files, see *File Management* on page 58.

To open the File menu from the Waypoints Page, go to **MENU > File**.

Option	What it does
New	Create a new GPX file and name it. When you turn off the device, the file will be automatically saved.
Open	View a list of GPX files in internal memory and on the SD card. The file location displays at the bottom of the screen. Select the file you want to open and press **ENTER** to view the waypoints on the device.
Save As	Save the open file as a new file, name it, and select the location for the file. If you have made any changes to the open file, the changes are saved in the new file—the original file does not retain the changes.
Move to Internal Drive/ Move to SD Card	Move the open file from the current stored location to the alternate location. For example, you can open a file from an SD card and move it to the device's internal memory.
Close	Close the open GPX file.

Marking a Waypoint

Use the **Mark** button on the PN-60 to mark a waypoint at your current GPS location or at the map cursor if you are viewing another location on the map. When the waypoint is marked at the map cursor location, the elevation is not available.

When you press **Mark**, the waypoint is saved and a waypoint details page opens where you can edit the waypoint information. You can also mark waypoints using the on-screen **Mark** option on Find search result details and route point details pages.

When you mark a waypoint, the default waypoint symbol is a red map pin and the label is "Wpt 001." When you change the symbol or label, each new waypoint uses that format until you change either the symbol or the name. When you add multiple waypoints with the same name, a sequential number is added to the name. For example, if you name a waypoint "Campsite," the second waypoint is named "Campsite 002" and so on.

When you mark a waypoint from a details page, such as a Find search result or a map object, the device uses the default information available for the symbol and name. If no information is available, the red map pin is the default symbol.

To mark a waypoint on the map

From the Map Page, press **Mark** to save the waypoint and open a new waypoint details page.

On the waypoint details page, you can do the following:

- Edit the waypoint details.
- Delete the waypoint.
- View the waypoint on the map. To return to the waypoint details page, press **QUIT**.
- Create a route to the waypoint.

To mark a waypoint from a search result or route point

On a Find search result details page or a route point details page, select **Mark** on the screen. The result is saved as a waypoint and the waypoint details page displays; you can edit the information.

Manage Waypoints

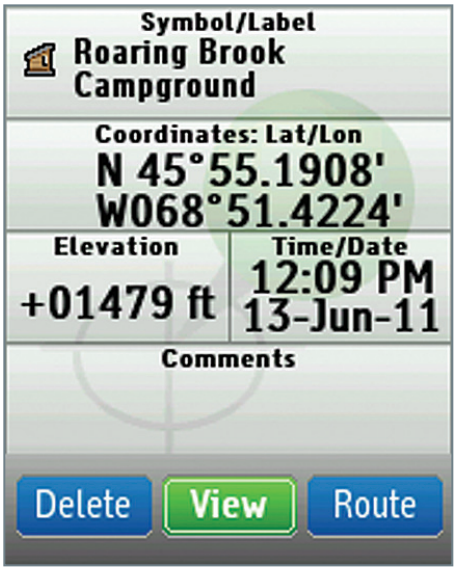
From a waypoint details page, you can edit, view, route to, or delete a waypoint. You can also add a waypoint to your Favorites or change the waypoint's location.

To	Do this
View waypoint details	Use the waypoint details page to view detailed information about a waypoint. From the Waypoints Page, select a waypoint and press ENTER. The waypoint details page opens.
Edit waypoint details	On a waypoint details page, you can customize the waypoint symbol, label (name), coordinates, elevation, time/date, and comments. To edit a field, use the arrow keypad to highlight it and press **ENTER**. Use the available option (drop-down list, arrow keypad, or keyboard) to make changes. When you are finished editing, press **ENTER**.
View waypoint comment	From the waypoint details page, go to **MENU > View Comment**. **Note** When navigating, the View Comment option is also available from the Map, Compass, Trip Info, and Directions pages. The comment for the most recently viewed point is displayed.
View/center waypoint on map	From the waypoint details page, select **View**; press **QUIT** to return to the waypoint details page.
Create a route to a waypoint	You can navigate to a waypoint from your current location. All driving routes and hiking routes with multiple points are automatically saved. For more information about creating and modifying routes, see *Routes Page* on page 38. 1. On the waypoint details page, select **Route**. 2. On the route details page, select **Hike** or **Drive**. The Map Page opens in navigation mode.
Delete a waypoint	From the waypoint details page, go to **MENU > Delete Waypoint**.
Delete waypoint by symbol	1. From the Waypoints Page, go to **MENU > Delete by Symbol**. 2. On the Waypoint Symbols page, select the check box for each symbol you want to delete. Only symbols used in the current file are listed. 3. Select **Delete**.
Add waypoint to Favorites	To add a waypoint to your Favorites on the Find Page, go to **MENU > Add to Favorites** from the waypoint details page.
Send waypoint with inReach or SPOT	If you have a connected inReach or SPOT satellite communicator, you can send a waypoint as a reference point using that device; see the device user manual for more information (**manuals.delorme.com**). From the waypoint details page, go to **MENU > Send Waypoint with inReach** or **Send Waypoint with SPOT**.

Location Options

From a waypoint details page, you can move, average, or project a waypoint using the Location Options menu.

To	Do this
Project a waypoint	To project a waypoint at a new location, provide the bearing and distance from an existing waypoint. 1. From the waypoint details page, go to **MENU > Location Options > Project Waypoint**. 2. Enter the information for projected waypoint in the **Bearing** and **Distance** fields. 3. Select **Move** to move the existing waypoint or **Create New** to mark a new waypoint at the projected location. Then, press **ENTER**.
Move the waypoint to the current GPS location	From the waypoint details page, go to **MENU > Location Options > Move to GPS Location**.
Average a waypoint	When you average a waypoint, the PN-60 records a series of GPS readings for the waypoint's location and averages them to increase the positional accuracy of the waypoint. As you average the waypoint, the GPS status, coordinates, elevation, number of readings at the location, and estimated accuracy display. Multiple readings improve the positional accuracy of the waypoint. The estimated accuracy number decreases as the accuracy improves. From the waypoint details page, go to **MENU > Location Options > Average Waypoint**. When the device has recorded the number of readings you want, press **ENTER**. **Tip** Average your location during multiple visits, at different times of the day to get the best results. Always place the device in the same location to average the waypoint.



Geocaches Page

Geocaching is a treasure hunting game where you use a GPS device to search for geocaches—containers that include a log for you to record your visit. Some geocaches have trinkets you can take—just follow the "take one, leave one" rule. To find out more about geocaching, visit **geocaching.com**.

On the PN-60, a geocache is a special type of waypoint used for geocaching. The Geocaches Page lets you view a list of the active geocaches on your PN-60. Geocaches are active on your PN-60 when you open a waypoint file that contains geocaches.

Managing Geocache Files

Geocaches are managed using waypoint GPX files; each file can contain up to 1,500 geocaches and child waypoints—a child waypoint might be for a parking area for the geocache. For more information about GPX files, see ***File Management*** on page 58.

Geocaches can also be managed using the LOC file format, which is the option available for non-premium accounts on Geocaching.com. LOC files contain limited information and will be converted to GPX files when synced with the device.

Tip Use Find to quickly locate a geocache in the open waypoint file. For more information, see ***Find Page*** on page 24.

Geocaches List

The Geocaches Page displays a list of active waypoints from the GPX file open on your device. The file name and the total number of geocaches and any child waypoints in the file appear at the top of the page. When you highlight a waypoint in the list, the Bearing and Distance info fields display measurements as follows:

- From the GPS position when the device has a GPS fix.
- From the cursor location if you are manually panning the map.
- From the map center if the GPS receiver is turned off.

Sorting the List

The Geocaches Page is automatically sorted into two separate lists—logged and not logged—based on the geocaching symbol type. You can sort the list you are viewing by the distance from your GPS or map location or sort alphabetically by name.

To change the sorting method, press **MENU**, highlight the sorting method to use and press **ENTER**. If the file has a large number of geocaches, press **ENTER** to interrupt the sorting process and see a partial list.

Symbols

Geocache symbols come from **geocaching.com** and are also available in the PN-Series symbol set in your DeLorme mapping application. A list of symbols appears at the end of this manual.

When you change a geocache symbol, be aware that it may affect how the geocache is displayed on the device. For example, if you choose a waypoint symbol, the geocache will move to the Waypoints Page and if you change a symbol from a not logged to a logged symbol type, it will move from the Show Not Logged to the Show Logged list.

File Menu

Use the File menu to manage geocache (waypoint) GPX files stored in the PN-60's internal memory or on an SD card in the device, as well as geocaches you create on the device. For more information about files, see *File Management* on page 58.

To open the File menu from the Geocaches Page, go to **MENU > File**.

Option	What it does
New	Create a new GPX file and name it. When you turn off the device, the file will be automatically saved.
Open	View a list of GPX files in internal memory and on the SD card. The file location displays at the bottom of the screen. Select the file you want to open and press **ENTER** to view the geocaches on the device.
Save As	Save the open file as a new file, name it, and select the location for the file. If you have made any changes to the open file, the changes are saved in the new file—the original file does not retain the changes.
Move to Internal Drive/ Move to SD Card	Move the open file from the current stored location to the alternate location. For example, you can open a file from an SD card and move it to the device's internal memory.
Close	Close the open GPX file.

How to Add Geocaches to the PN-60

Use one of the following methods to send geocaches to your device.

- **DeLorme Topo North America 9.0**–Use Earthmate GPS Sync to sync GPX files, including pocket queries, or LOC files from Geocaching.com, and then send them to your device. See the program's Help for more information.
- **DeLorme Send to GPS Plugin**–This free plugin is available to members of **geocaching.com**.com. Once you find a geocache on **geocaching.com**, send it directly to your PN-60.
- **DeLorme Cache Register**–Cache Register is a free desktop computer plugin that you can use to send pocket queries from **geocaching.com** to a PN-60. To download Cache Register, visit **delorme.com**. See the program's Help for more information on how to use Cache Register. Cache Register is compatible with Apple® computers.

To use the Send to GPS plugin

With the DeLorme Send to GPS plugin, you can send one geocache at a time to a PN-60. You must be logged in to **geocaching.com** to use this feature. Please note that geocache descriptions and hints are available only for premium members of **geocaching.com**.

1. Connect your PN-60 to your computer. The device should be set to the default Connect to Computer setting—Use GPS.

2. On **geocaching.com**, use the *Seek a Cache* feature to find the geocaches in your area of interest.
3. From the results list, click the **Send to GPS** icon or view the geocache's details and click the **Send to GPS** button. The DeLorme Send to GPS plugin opens and transfers the geocache to your device.

Manage Geocaches

From a geocache details page, you can edit, view, route to, or delete a geocache. You can also add a geocache to your Favorites or change the geocaches's location.

To	Do this
View geocache details	Use the geocache details page to view detailed information about a geocache. From the Geocaches Page, select a geocache and press **ENTER**. The geocache details page opens.
Edit geocache details	On a geocache details page, you can edit the symbol, label, and coordinates. Changes you make to the geocache details on your device do not update information on **geocaching.com**. To edit a field, use the arrow keypad to highlight it and press **ENTER**. Use the available option (drop-down list, arrow keypad, or keyboard) to make changes. When you are finished editing, press **ENTER**.
View geocache description	The description gives you detailed information about the geocache, such as the cache ID, the size, the difficulty and terrain, as well as the full description, the hint and five most recent logs. From the geocache details page, go to **MENU > View Description**. **Tip** Press the **Out** button to move through the description one page at a time. Press the **Up** arrow on the arrow keypad to move to the end of the description.
View geocache hint	To quickly view the geocache hint, from the geocache details page, go to **MENU > View Hint**.
View geocache info	When navigating, the View Geocache Info option is available from the Map, Compass, Trip Info, and Directions pages. Go to **MENU > View Geocache Info** and then select **View Details Page**, **View Description**, or **View Hint**.
View/center geocache on map	From the geocache details page, select **View**; press **QUIT** to return to the geocache details page.
Create a route to a geocache	You can navigate to a geocache from your current location. All driving routes and hiking routes with multiple points are automatically saved. For more information about creating and modifying routes, see *Routes Page* on page 38. On the geocache details page, select **Route**. The Map Page opens in navigation mode.
Delete a geocache	From the geocache details page, go to **MENU > Delete Geocache**.
Delete geocache by symbol	1. From the Geocaches Page, go to **MENU > Delete by Symbol**. 2. On the Geocache Symbols page, select the check box for each symbol you want to delete. Only symbols used in the current file are listed. 3. Select **Delete**.
Add geocache to Favorites	To add a geocache to your Favorites on the Find Page, go to **MENU > Add to Favorites** from the geocache details page.

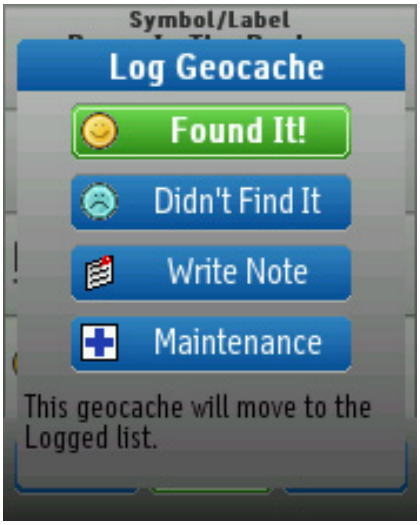
To	Do this
Send geocache with inReach or SPOT	If you have a connected inReach satellite communicator or SPOT Satellite Communicator, you can send a waypoint as a reference point using that device; see the device user manual for more information (**manuals.delorme.com**). From the geocache details page, go to **MENU > Send Geocache with inReach** or **Send Geocache with SPOT**.

Location Options

From a geocache details page, you can move, average, or project a geocache using the Location Options menu.

To	Do this
Project a geocache	To project a geocache at a new location, provide the bearing and distance from an existing geocache. 1. From the geocache details page, go to **MENU > Location Options > Project Geocache**. 2. Enter the information for projected geocache in the **Bearing** and **Distance** fields. 3. Select **Move** to move the existing geocache or **Create New** to mark a new geocache at the projected location. Then, press **ENTER**.
Move the geocache to the current GPS location	From the waypoint details page, go to **MENU > Location Options > Move to GPS Location**.
Average a geocache	When you average a geocache, the PN-60 records a series of GPS readings for the geocache's location and averages them to increase the positional accuracy of the geocache. As you average the geocache, the GPS status, coordinates, elevation, number of readings at the location, and estimated accuracy display. Multiple readings improve the positional accuracy of the geocache. The estimated accuracy number decreases as the accuracy improves. From the geocache details page, go to **MENU > Location Options > Average Geocache**. When the device has recorded the number of readings you want, press **ENTER**. **Tip** Average your location during multiple visits, at different times of the day to get the best results. Always place the device in the same location to average the geocache.

Description
Blueberry Knoll
Moraine by Northwoods Explorer
Cache ID: GC1XDZF
EarthCache
SIZE: Not Chosen
D T
Inventory: 0
Desc: This earthcache will bring you to a location where you can see evidence of the glacial retreat as it formed several



Geocaching

Out in the field, pick a geocache to start with and then use the PN-60 to navigate to, log, and write field notes for one geocache or a series of geocaches.

To navigate to a geocache

Navigate from your current location to the first geocache on your list. Once you log your find, the PN-60 finds the next geocache for you. Routes to geocaches are not saved on the device.

1. On the geocache details page for the first geocache on your Not Logged list, select **Route**.
2. Select **Hike** or **Drive**.
   The route calculates and the Map Page displays in navigation mode.
3. Navigate to the geocache.
4. When you are ready to log the geocache, go to **MENU > Log Your Geocache Find**.
5. Write a field note or leave the default information and select **Done**.
6. On the **Next Geocache** screen, select an option:
   - » **Find Next Closest**–View the details page for the next geocache and go back to step 1.
   - » **View List**–View the Not Logged list and pick your own geocache.
   - » **Stop Geocaching**–Stop navigating and geocaching.

Logging and Field Notes

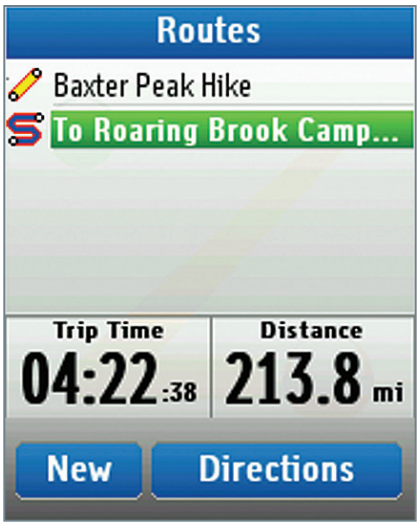
When navigating, you can log a geocache from the Map, Compass, Trip Info, or Directions pages. You can also log a geocache at any time from its details page. When you log a geocache, you can write a field note that you can later upload to **geocaching.com**.

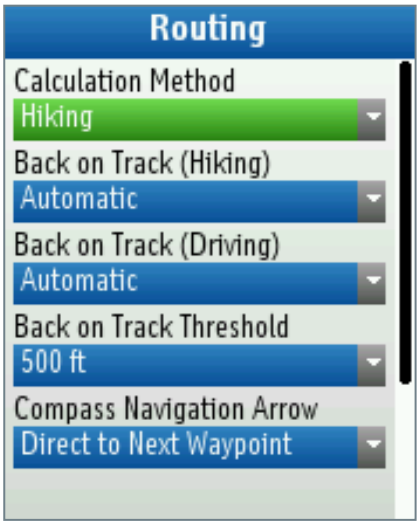
To	Do This
Log a geocache	7. Go to **MENU > Log Your Geocache Find**. 8. Select the log option: **Found It!**, **Didn't Find It**, **Write Note**, or **Maintenance**. Any of these actions changes the geocache symbol to the one on the button you choose and moves the geocache to the Show Logged list. 9. Write a field note or leave the default information and select **Done**.
Write a field note	On the Field Notes page, you can use one or all of the fields to create a field note: • **Quick Notes**–This drop-down list includes a list of acronyms used by geocachers for logging caches. Select the note from the drop-down list and then select **Add**. You can add multiple quick notes. • **Your Notes**–To add your own notes, highlight the comment area and press **ENTER**. • Signature–At the bottom of the screen, you can enter a two-line signature. Highlight **Enter signature text** and press **ENTER** to open the keyboard. Ensure the **Include Signature** check box is selected to automatically add your signature to all field notes that you create.
View field notes	Go to **MENU > View Field Notes** to see a list of caches for which
Upload field notes	You can upload field notes from your device to Geocaching.com with the Earthmate GPS Sync dialog in Topo North America, Cache Register, the DeLorme Field Notes page on geocaching.com, or a SPOT Communicator paired with your PN-60w. See the Help for each application for complete instructions. For the SPOT Communicator, select the option to log your find with SPOT and follow the instructions on the PN-60w.

Routes Page

The Routes Page displays a list of routes you have created on the device and routes you have sent to the device with a DeLorme mapping application. Using DeLorme Topo North America or XMap to plan routes on the desktop for transfer to the PN-60 ensures you take exactly the road route you want and is the best way to create long routes.

In the routes list, hiking (direct) routes have a yellow "Z" icon and driving routes have a blue curved line icon. The active





route name appears in bold text. You can save up to 100 routes on the device.

Sorting the List

There are two ways to sort the list of routes—by name (alphabetically) or time (in order of last use). To change the sorting method, press **MENU**, highlight the sorting method to use and press **ENTER**.

Route Settings

Use route settings to determine the route calculation method, back on track options, and hiking route options.

From the Routes Page, press **MENU** and select **Edit Route Settings**. Then, select the route option you want to change and then select the new setting.

Option	What it does
Calculation Method	Determines the option (Hike or Drive) to use when you create a route and is the default method when viewing a route that has not been calculated. From the drop-down list, select **Hiking** or **Driving**.
Back on Track Threshold	For driving routes, sets the distance threshold for initiating a back on track calculation. Select a distance from the drop-down list. A large value prevents excessive prompts, while a small value recalculates as soon as you are off the route.

Option	What it does
Back on Track (Hiking) Back on Track (Driving)	Sets the option for informing you that you are off course and showing the way back to the route. When the route recalculates, the route highlight is cleared from the start to the current GPS location. The original route is not modified; you can select it again to restore it. • **Hiking**–Select **Automatic** to continuously recalculate from the current GPS location to the next stop in the route. Select **Prompt** to alert you when you are off track; you can then choose to recalculate or ignore. Select **Off** if you do not want to use Back on Track. Also, select **Off** for trail routes sent to your device from DeLorme Topo North America or XMap—if the route recalculates, it will be converted to a direct route to the finish. • **Driving**–Select **Automatic** to recalculate based on how far off the route you are. Select **Prompt** to alert you when you are off track; you can then choose to recalculate or ignore. Select **Off** if you do not want to use Back on Track.
Hiking Route Calc Speed	The walking speed that the device uses to calculate a walking route. Press **ENTER** and use the arrow keypad to make changes. When you are finished editing, press **ENTER**.
Restore Default Settings	To restore the default settings for all options, select **Restore Default Settings**.

Create a Route

There are several ways to create a route on the PN-60:

- When viewing a geocache, waypoint, or a Find search result, use the Route option on its details page. See the appropriate section of the manual for more information.
- From the Routes Page, you can create a route to one point or multiple points.

To create a route from the current position

Current Position is the default start point for a route. It's the current GPS location or, if GPS is turned off, the map cursor position.

1. On the Routes Page, select **New**.
2. To use the default route name—the last point you add to your route—go to step 3.
   OR
   To add a name for your route, highlight the **New Route** field, press **ENTER**, and use the keyboard to make changes.
3. Ensure **Add Point** is highlighted and press **ENTER**.
4. Select the method for adding the point.
   - » **Use Find**–Opens the Find Page. Search for the point you want to add; from the search result details page, select **Add**.
   - » **Use Map**–Opens the Map Page. Pan the map to the location you want to add and press **ENTER**. You can add multiple points while panning. If there are multiple objects at the cursor location, a list displays—select the object from the list. When you are finished adding points, press **QUIT**.
5. Repeat step 4 for each point in the route.
6. To navigate, select **Drive** or **Hike**.
   OR
   To view the route, go to **MENU > View Route on Map**, and then select **Drive** or **Hike** when prompted.
   To hide the route, go to **MENU > Hide Route on Map**. To begin navigating, go to the route details page.

Tips

- When you create a direct route from your current GPS location to a single point and navigate to it, the route is automatically deleted once you stop navigating.
- To save the route without navigating or viewing it, press **QUIT** after you add the last point. The route is saved using the type selected in the Calculation Method drop-down list in the route settings.

Route Points

As you add points to a route, you can view point details, change the point's order in the route, or remove the point from the route.

Highlight the point and press **ENTER**; then select an option.

Option	What it does
Details	The details page for the point displays. The options available depend on the type of point you are viewing. To add the point to your Favorites on the Find Page, go to **MENU > Add to Favorites**.
Move	Selects the point in the list; use the arrow keypad to move the point up or down in the list order, and then press **ENTER**.
Remove	Removes the point from the list. For example, you can remove the Current Position field if you don't want to include it in your route.

Route Options

When navigating, go to **MENU > Route Options** from the from the Map, Compass, Trip Info, or Directions pages.

Option	What is does
Stop Navigating	Stop navigating the current route.
Back on Track	Recalculates the route to your destination.
Switch to Driving/Hiking	Switches calculation method from Hiking to Driving.

Manage Routes

You can view route details, navigate a route, view a saved route and more.

To	Do this
View route details	On the Routes Page, select a route to open its details page. If the route name is in bold text, it is displaying on the map.
Navigate a route	From the route details page, select **Drive** or **Hike**.
View a saved route on the map	From the route details page, go to **MENU > View Route on Map**. If the route has never been calculated, select **Hike** or **Drive**. The route displays on the map. To hide the route on the map, go to **MENU > Hide Route**.
Reverse a route	From the route details page, go to **MENU > Reverse Route**. To navigate the reversed route, select **Drive** or **Hike**. OR To view the reversed route, go to **MENU > View Route on Map**, and then select **Drive** or **Hike** when prompted.

To	Do this
Simulate navigation	When you simulate navigation, track recording is turned off. From the route details page, go to **MENU > Simulate Navigation**. When you see the Simulate Navigation message, select **OK**. The Map Page opens and simulates the route. You can access the following settings from the Map, Compass, Trip Info, and Routes pages. • To stop simulation, go to **MENU > Route Simulation Options > Stop Simulation**. • To change the simulation speed, go to **MENU > Route Simulation Options > Simulation Speed** and then select a speed.
Hide the route	Hide a route you are viewing on the map (when not navigating or simulating a route). From the Routes Page, go to **MENU > Hide Route**.
Delete the route	From the route details page, go to **MENU > Delete Route**.
View comment	When navigating to a waypoint or other point, quickly view its comment (if available). The comment for the most recently viewed point is displayed.
View geocache info	When navigating to a geocache, view the geocache details page, description, or hint. For more information, see *The Geocaches Page* section starting on page 33.
Log your geocache find	When navigating to a geocache, quickly log geocaches, write field notes, and pick your next cache. For more information, see *Managing Geocaches* on page 35.

Directions Page

When you are navigating a route, the Directions page is available in the **PAGE** button sequence. You can also view the Directions page for the active route from the Routes Page by selecting **Directions** or from the menu of the Map, Compass, or Trip Info pages.

To change the distance type

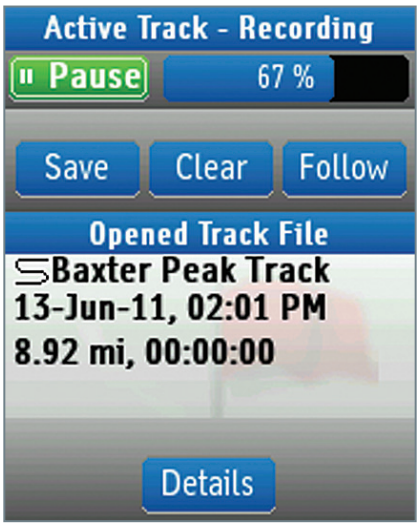
You can change the distance type that is displayed for each step in the directions. The option you are using is not displayed; to change to the available option, select it.

- **Show Distance to Finish**–The distance from the step to the end of the route.
- **Show Distance to Next Turn**–The distance from one step to the next step.

Tracks Page

A track is a recording of points along the path you travel—use it to keep a log of your travels. From the Tracks Page, you can turn track recording on and off, set the method for recording track points, manage track files, and view a track on the Profile Page. You can open a saved track file while a new track is recording—both the active and open track can display on the Map Page at the same time.

The Opened Track File area displays information about a saved track file that you have opened to view.



Viewing a Track on the Map

On the Map Page, you can view the active track and one open track file at the same time. An open track file is the color set in the track's details (see *Managing Track Files* on page 44). The appearance of the active track is based on your GPS status.

- **3-D fix**–Green line
- **2-D fix**–Yellow line
- **No fix or GPS receiver is off**–No points are placed on the map. Points resume once a 2-D or 3-D fix is established.

Track Settings

To customize how tracks are recorded, from the Tracks Page, go to **MENU > Edit Track Settings**.

Option	What it does
Record points by	The method for logging points; select **Time** or **Distance** from the drop-down list. A short time interval gives you the most detailed results but quickly adds many points; logging by distance gives you a longer recording time.
Recording interval	The amount of time or distance between each point recording. To edit the number, highlight it and press **ENTER**. Use the left/right arrows on the arrow keypad to select a number and use the up/down arrows to change it.

Option	What it does
When track is full	Determines what the device does when the maximum number of points (20,000 per track) is reached. • **Start Recording a New Track**–The device saves the track and starts recording a new track. • **Overwrite Points**–The oldest points on the track are replaced with new points. • **Stop Recording**–The device stops recording.
Prompt to Reset Trip Info	When this check box is selected, the Reset Trip Info page appears when you manually save or clear an active track. This synchronizes the Trip Info page with the active track.
Restore Default Settings	Restores the default track settings.

Managing Active Tracks

The active track is the open track on the device. You can turn track recording on or off; clear, follow, profile, view statistics for, or save the active track.

To	Do this
Turn track recording on or off	To turn track recording on, select **Record**. To stop recording, select **Pause**.
Clear the active track	To clear the active track, on the Tracks Page, select **Clear**. If the Reset Trip Info prompt is turned on in the track settings, edit the check boxes and select **Reset Now**, or press **QUIT** to exit the page. If track recording is turned on, a new track will start recording.
Follow the active track	To follow the active track back to your starting point, on the Tracks Page, select **Follow**. The device creates a route and the Map Page opens in navigation mode. The active track continues recording as you follow the track back to the start.
Profile the active track	To profile the active track, from the Tracks Page, go to **MENU > Profile Active Track**. The Profile Page opens. For more information, see *The Profile Page* on page 46.
View statistics for the active track	To view statistics for the active track, from the Tracks Page, go to **MENU > View Active Track Statistics**. You can view statistics for the entire track or for a section of the track; use the arrow keypad to scroll through the statistics pages. For descriptions of the statistics fields, see the *Info Fields Table* starting on page 61.
Save the active track	1. Select **Save** to save the active track as a file and clear the active track memory. 2. Name and save the file. 3. On the track details page, edit the **Track** (name), **Color**, and **Comments** fields. To edit a field, highlight it and press **ENTER**. Then, use the available option (drop-down list, arrow keypad, or keyboard) to make changes. When you are finished editing, press **ENTER**. 4. If the **Reset Trip Info** prompt is turned on, edit the check boxes and select **Reset Now**, or press **QUIT** to exit the page.

Managing Track Files

Saved tracks are managed using GPX files; the number of track files you can save depends on the memory available.

For more information about GPX files, see *File Management* on page 58.

To	Do this
Manage files	Go to **MENU > File**. The following options are available. • **Open**–Opens a list of GPX files in internal memory and on the SD card. The file location displays at the bottom of the screen. Select the file you want to open and press **ENTER** to view it on the device. • **Close**–Closes the open GPX file. • **Move to Internal/Move to SD Card**– Moves the open file from the current stored location to the alternate location. For example, you can open a file from an SD card and move it to the device's internal memory.
View details for the open track	Open a saved track file using the File menu. Then, on the Tracks Page, select **Details**. The track details page opens.
Edit details for the open track	On a track details page, you can customize the track name, color, and comments. To edit a field, use the arrow keypad to highlight it and press **ENTER**. Use the available option (drop-down list, arrow keypad, or keyboard) to make changes.
View/hide the open track on the map	On the track details page, select **View**. The track displays on the map using the color in the **Color** field. To hide a track on the map, on the track details page, select **Hide**.
Follow the open track	Open the track file and on the tracks details page, select **Follow**. The device creates a route and the Map Page opens in navigation mode.
Play back the open track	While you play back a saved track, the PN-60's GPS receiver and active track recording are turned off. You must turn recording back on once you have finished playing back the track. From the track details page, go to **MENU > Start Track Playback**. When you see the Track Playback message, select **OK**. The Map Page opens and simulates following the track. You can access the following settings from several pages. • To change the track playback speed, go to **MENU > Playback Speed** and then select a speed. • To stop track playback, go to **MENU > Stop Track Playback**.
Profile the open track	From the track details page, go to **MENU > Profile Track**. The Profile Page opens. For more information, see *Profile Page* on page 46.
View statistics for the open track	To view distance, elevation, speed, and trip statistics for the open track, from the track details page, go to **MENU > View Opened Track File Stats**. You can view statistics for the entire track or for a section of the track; use the arrow keypad to scroll through the statistics pages. For descriptions of the statistics fields, see *Info Fields* on page 61.
Reverse an open track	From the track details page, go to **MENU > Reverse Track**. Name and save the file; "Reversed" is added to the file name.

Calculating the Area of a Track

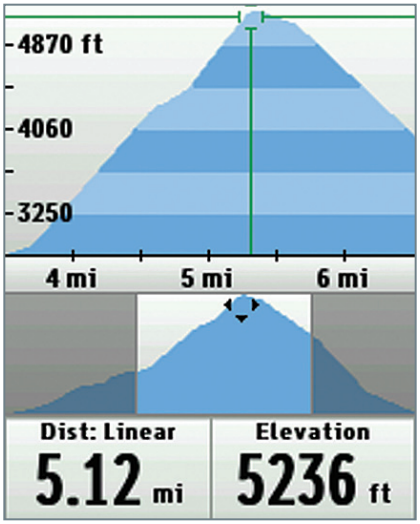
You can use a track to calculate an area by returning to your starting position. If you do not return to your starting position, a straight line is used to close the gap. Do not cross your path as you record the track or it will not calculate correctly.

- For the active track, go to **MENU > Show Active Track Area**.
- For a track file, view the track details, and then go to **MENU > Show Track Area**.

Profile Page

A track is a recording of points along the path you travel. Viewing a profile of a track gives you valuable information about the track's elevation—you can view the profile over track distance or time recorded while traveling. When the profile changes while you are stationary and tracking by time, the profile indicates changes in pressure that you can use to monitor weather changes. The Profile Page lets you view the elevation of the active track as it is recording or that of a saved track.

For more information about tracks, see *Tracks Page* starting on page 42.



Viewing a Profile

You can open the Profile Page from the Home Page or from the menu on the Tracks Page.

The Profile Page shows two views of the track you are profiling. Press up or down on the arrow keypad to switch which view is active—the crosshair appears on the active view.

- **Detailed**–The upper section of the page shows the section of the track you are viewing. The initial view shows the track from its start to the current location (for an active track) or to the finish (for a saved track).
- **Overview**–The bottom section of the page shows a profile of the entire track.

Time or Distance

You can view the track profile by distance along the track or by time travelled along the track.

To change the profile method, go to **MENU > Switch to Distance Profile** or **Switch to Time Profile**. The ***x*** axis of the profile graph reflects the method.

Scale

Switching the type of scale used to measure changes in elevation gives you different views of the graph.

To change the scale type, go to **MENU > Switch to Static Scale** or **Switch to Dynamic Scale**.

- **Static**–The static scale adjusts the profile graph based on the maximum and minimum elevation; the same graph scale is maintained for the entire track, letting your compare current elevation to the rest of your trip. This is the default view.
- **Dynamic**–The dynamic scale adjusts based on the visible maximum and minimum zoom levels. As you pan the graph or zoom in or out, the graph changes to give you the best view.

GPS Indicator

The GPS location is indicated by a green dot on the graph when you are within 100 feet of the track. The dot is in the center of the crosshair (unless you are panning along the profile). A red dot indicates there is no GPS fix within 100 feet of the track you are profiling.

Working with Profiles

To	Do this
Profile a track	To view a profile for the active track, open the Profile Page. Track recording must be turned on to view an active profile. To view a profile for a saved track, from the Profile Page, go to **MENU > File > Open**. Then, select the track file you want to profile and press **ENTER**. To close the file, go to **MENU > File > Close**.
Switch the track view	To quickly change the track view from the active track to the open track file, go to **MENU > File > Switch to Profile Active Track/Switch** to **Profile Opened Track**.
View profile statistics	To view statistical information about the profile, from the Profile Page, go to **MENU > View Profile Statistics**. Use the right and left buttons on the arrow keypad to scroll through the statistics pages. • **Start to Finish**–View speed, elevation, and trip statistics for the entire track. • **Start to Cursor**–When you have panned along the track, view speed, elevation, and trip statistics from the track start to the track point at the cursor location. • **Cursor to Finish**–When you have panned along the track, view speed, elevation, and trip statistics from the track point at the cursor location to the track finish. • **Cursor Point Info**–When you have panned along the track, view coordinates, time/date, elevation, grade, speed, and GPS status for that specific point on the track.
Pan and zoom	Use the right and left arrows on the arrow keypad to move the crosshair—or cursor—along the active view in the profile. • Pan along the track and press **ENTER** to view that area on the Map Page. Press **QUIT** to return to the profile. • Use the **IN** button to zoom in to show a smaller area with more detail. • Use the **OUT** button to zoom out and show a larger area with less detail. • When you zoom in or pan to an area on the overview profile, the detailed profile matches the highlighted section in the overview.

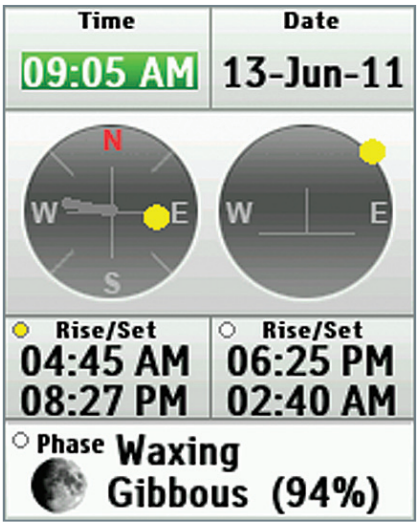
Info Fields

The info fields that display at the bottom of the Profile Page depend on your activity and whether you are navigating or tracking (normal GPS use). To access the Info Fields options, go to **MENU > Info Fields**.

For more information, see *Info Fields* on page 61 and *Activities Page* on page 52.

Sun/Moon Page

Use the Sun/Moon Page to view the sunrise/sunset and moonrise/moonset information and the moon phase information for a specific time, date, and location.



The Sun/Moon Page shows information for the current map center at the time and date indicated. For example, if you are in Maine and you pan the map to California, you see the position of the sun and moon in California for the time and date displayed.

Sun/Moon graphic

The sun/moon graphic is in the center of the page. The graphic on the left shows the current position of the sun/moon in relation to a compass. The gray line represents a shadow to illustrate the path of the sun overhead.

When the sun is directly overhead in summer months, the shadow is very short. As winter approaches and the sun travels lower through the sky the shadow indicator becomes longer. The graphic on the right shows where the sun/moon is currently as it moves overhead from east to west.

Rise/Set

The Rise/Set fields display the time that both the sun (left) and moon (right) will rise and set. If the sun or moon does not rise or set on a specific date, dashes (- -) display in the applicable information fields.

Moon Phase

The Phase field displays the name of the current moon phase, the percentage completed if it's waxing or waning, and a graphic representation of the phase.

Settings

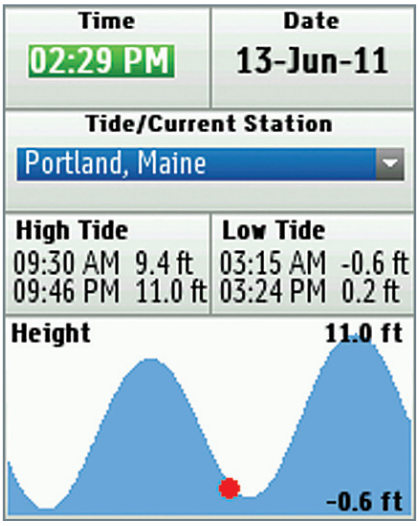
You can change the location or time and date for viewing sun/moon information or reset the time and date.

To	Do this
Change the location	To view information for a location other than your current GPS location, change the map center (for example, by panning the map or viewing a waypoint). Then, open the Sun/Moon Page from the Home Page.

To	Do this
Change the time and date	Change the time and date to see different sun/moon information. 1. Highlight the field you want to edit (**Time** or **Date**). 2. Press **ENTER** and use the arrow keypad to make changes. When you are finished editing, press **ENTER**.
Reset the time and date	If you change the time and date on the Sun/Moon Page, you can reset it to the device's time and date. From the Sun/Moon Page, go to **MENU > Reset Time/Date**.

Tides Page

Use the Tides Page to view tide (for oceans) or current (for tidal rivers) information for a specific time, date, tide station, and location.



The fields in the middle of the screen (above the graph) display the high/low tide (ocean) or maximum ebb/minimum flood current (tidal river) based on the current time, date, and location.

The graph at the bottom of the screen shows the tide/current information for a 24-hour period. The red dot in the graph represents the tide/current based on the time and date selected.

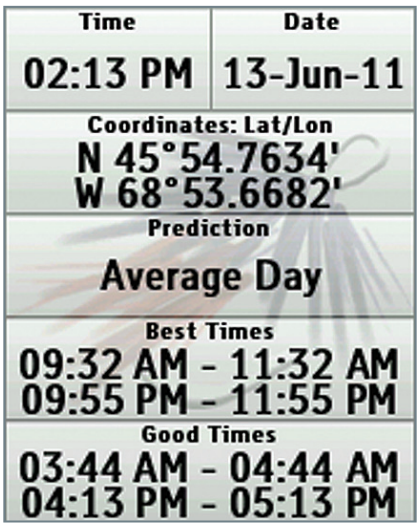
Settings

You can change the location, tide station, or time and date for viewing tide information or reset the time and date.

To	Do this
Change the location	To view information for a location other than your current GPS location, change the map center (for example, by panning the map or viewing a waypoint). Then, open the Tides Page from the Home Page. The information for the closest tide station displays and the ten tide stations closest to the map location are available in the Tide/Current Station drop-down list.
Change the tide station	Select the tide station from the **Tide/Current Station** drop-down list; the ten stations closest to the current map center are listed.
Change the time and date	You can change the time and date to see different tide/current information. 1. Highlight the field you want to edit (**Time** or **Date**). 2. Press **ENTER** and use the arrow keypad to make changes. When you are finished editing, press **ENTER**.
Reset the time and date	If you change the time and date on the Tides Page, you can reset it to the device's time and date. From the Tides Page, go to **MENU > Reset Time/Date**.

Hunt/Fish Page

Use the Hunt/Fish page to view a prediction of the hunting and fishing conditions for a specific day and location. The calculations are based on John Alden Knight's Solunar Tables, which use the cycle of the sun and moon to predict activity and feeding schedules.



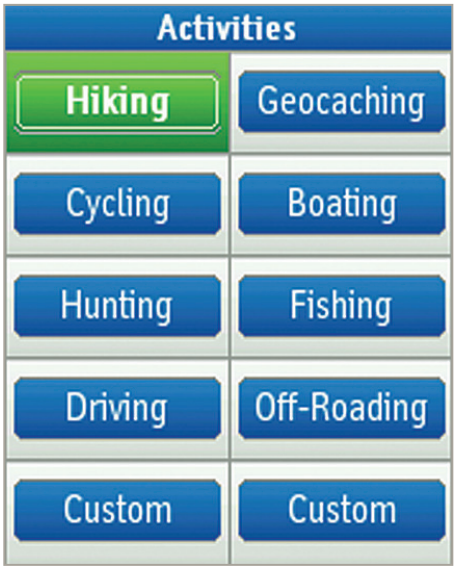
Settings

You can change the location or date for viewing hunting and fishing information or reset the time and date.

To	Do this
Change the location	The coordinates shown on the Hunt/Fish Page are for the current map center. To view information for a location other than your current GPS location, change the map center (for example, by panning the map or viewing a waypoint). Then, open the Hunt/Fish Page from the Home Page.
Change the date	You can change the date to see a prediction of the hunting and fishing conditions for a specific day. When you view the Hunt/Fish Page, the Date field is highlighted; press **ENTER** and use the arrow keypad to make changes. When you are finished editing, press **ENTER**.
Reset the date	To reset the date to the device's date, from the Hunt/Fish Page, go to **MENU > Reset Date**.

Activities Page

Use the Activities Page to optimize the info fields and settings on your PN-60 for eight pre-defined activities and two custom activities. For each activity, the device will automatically change the page order, info fields, and other settings to give you information that is specific to what you are doing.



If you change an option while you are using an activity, your changes are saved—allowing you to fine-tune each one of your activities. To change info fields for navigating or tracking (normal GPS use), just make sure you are in the mode you want to change.

To	Do this
Change the activity	Select the activity you want to use and press **ENTER**. The background of the current activity is highlighted green.
Create a custom activity	Highlight one of the Custom activities and then go to **MENU > Rename Button**. Use the on-screen keyboard to edit the button name.
Change the Home Page icon order	You can change the order of the Home Page icons for each activity. Go to **MENU > Customize Home Page** and press **ENTER**. Select an icon and press **ENTER**. The icon frame turns into arrows. Use the arrow keypad to move the icon, and then press **ENTER**.
Restore the default activity settings	It's easy to switch back to the default options for an activity at any time. With the activity you want to reset highlighted on the Activities Page, go to **MENU > Restore Default Settings**.

Settings Page

Use the Settings Page options to modify the default settings on the PN-60.

System

Use the System options to modify GPS/WAAS settings, select the battery type, turn USB power on or off, and view and manage memory information.

From the Settings page, select **System** and then select the option.

Option	What it does
GPS Setting	• **Normal**–Normal GPS use • **Power Saving**– Several settings are changed to optimize battery performance. The screen backlight is turned off after 15 seconds. The GPS updates less often and WAAS is turned off. If the accelerometer detects no motion, the GPS is turned off after 30 seconds. The device goes into "doze mode" after 30 seconds. To wake up the PN-60, move it or press any button. • **Off**–Turns off GPS satellite tracking. See *To turn off GPS* on page 19. • **Demo Mode**–Turns Demo Mode on or off. See *Demo Mode* on page 5.
Sleep when Stationary	Select the check box to put the device in doze mode when it is stationary for more than 60 seconds.
Stealth Mode	Select this check box to set Sounds to Mute All, Backlight Intensity to its lowest level, and the Backlight Timer to 5 seconds.
WAAS	From the drop-down list select On to use WAAS or Off if you don't want to use it. See *GPS and WAAS Status* on page 18.
Battery Type	You must manually change the battery type when changing the type of battery you use to ensure the battery charge indicator displays correctly. From the drop-down list, select **Alkaline**, **Lithium**, **NiMH**, or **Li-ion (Rechargeable)**; See *Batteries and SD Card* on page 3. **Note about Li-ion batteries** Use only DeLorme Li-ion batteries. When you remove a Li-ion battery, the Battery Type will switch automatically to Lithium.
USB Power	From the drop-down list, select **On** to allow the device to be powered by a USB port on your computer. Select **Off** if you don't want to allow USB power.
Memory Use	View the following: • Internal memory use • SD card memory use • The number of waypoints/geocaches, tracks, and routes open on the device. • The device's total capacity for storing waypoints/geocaches, tracks, and routes.
Restore Default Settings	Restores the default system settings.

Display

Use the Display options to update the device's color scheme, backlight, and other screen settings.

From the Settings Page, select **Display** and then select the option you want to changes.

Option	What it does
Color Scheme	From the drop-down list, select the color scheme (**Light**, **Dark**, **Midnight**, or **Low Light**).
Use Midnight at Sunset	Select this check box to automatically switch to the Midnight color scheme between sunset and sunrise.
Allow Screen Rotation	Select this check box if you want the screen to rotate when you view the device upside down. When rotated, the arrow keypad adjusts to match the device's orientation.
Screenshots On	Select the check box to take a screen capture when you press and hold the **Power** button and then press **ENTER**. A sound plays to confirm the screenshot.
Auto-adjust Backlight	Select this check box if you want the device to automatically adjust the backlight based on the available light. If you manually change the backlight, the check box is cleared.
Backlight Intensity	Use the arrow keypad to move the slider to the right or left to increase or decrease the intensity of the backlight. You can also access the backlight setting using the Power button; see *Power* on page 5.
Backlight Timer	From the drop-down list, select the amount of time the backlight stays on before it dims to save power or select **Always On** or **Always Off**.
Restore Default Settings	Restores the default display settings.

Connect to Computer

Use the Connect to Computer options to determine what mode the device is in when you connect it to your computer with the USB cable.

From the Settings Page, select **Connect to Computer** and then select the option.

Option	What it does
When Connected	From the drop-down list, select the option to use when the PN-60 is connected to your computer. • **Use GPS**–Use this option if you are using a compatible DeLorme mapping program or Cache Register to sync your device—the program will automatically put the device in the correct transfer mode. This also allows you to use the device as an external GPS; for example, with a laptop. • **Open SD Card**– Allows you to view an SD card in the device as a drive for manual file management. • **Open Internal Drive**– Allows you to view the device's internal memory as a drive for manual file management.
Use XMap 7 Mode	Allows you to use a PN-60 with XMap.
Use Serial Port	Select the check box to use a serial port connection for NMEA out only. NMEA cable not available from DeLorme.
Restore Default Settings	Restores the default connection settings.

Compass and Altimeter

Use the Compass & Altimeter options to activate or deactivate the electronic compass, the barometric altimeter, and the auto calibrate altimeter feature. You can also calibrate the electronic compass and the barometric altimeter. For more information, see *Compass and Altimeter Calibration* starting on page 59.

From the Settings Page, select **Compass & Altimeter** and then select the option.

Option	What it does
Use Electronic Compass	Select the check box to use the electronic compass. If this is not selected, the device uses the GPS compass.
Use Barometric Altimeter	Select the check box to use the barometric altimeter. If this is not selected, the device uses GPS elevation.
Auto Calibrate Altimeter	Allows the altimeter to automatically calibrate.
Calibrate	Go to **Compass & Altimeter > Calibrate**, select **Calibrate Compass** or **Calibrate Altimeter**, and then follow the on-screen instructions.
Restore Default Settings	Restores the default compass and altimeter settings.

Wireless

PN-60w only

The wireless option allows you to turn the wireless antenna on and off. The wireless antenna must be on to pair and use an inReach or SPOT satellite Communicator with the PN-60w.

From the Settings Page, select **Wireless** and then select the option.

Option	What it does
Wireless Antenna On	Select the check box to turn the wireless antenna on.
Communicator	From the drop-down list, select **inReach** or **SPOT**.
Restore Default Settings	Restores the default wireless settings.

Sound

The Sound options control device sounds and volume.

From the Settings Page, select **Sound** and then select the option.

Option	What it does
Sounds	From the drop-down list, select how to play device sounds: **Play All**, **Play Critical Alerts**, or **Mute All**.
Volume	Use the right and left arrows on the arrow keypad to adjust the volume.
Button Press	From the drop-down list, select the sound that plays when you press a button or **None**.
Message	From the drop-down list, select the sound to play when you receive a message or select **Off** for no sound.
Power	From the drop-down list, select the sound to play when you power the device on or off or select **Off** for no sound.

Option	What it does
Turn Alert	From the drop-down list, select the sound to play to alert you to a turn or select **Off** for no sound.
Restore Default Settings	Restores the default sound settings.

Time

Use the Time options to modify the devices's time format, time zone, and Daylight Saving Time preferences.

From the Settings Page, select **Time** and then select the option.

Option	What it does
Time format	From the drop-down list, select **Local 12 hr** or **Local 24 hr**.
Zone	From the drop-down list, select your actual time zone or select **Automatic** to allow the device to update the time based on your GPS location.
Use Daylight Saving Time	Select the check box to adjust the time for Daylight Saving Time.
Restore Default Settings	Restores the default time settings.

Units

From the Settings Page, select **Units** and then select the option for each unit from the drop-down list.

Note The Coordinates: Primary setting controls what the device displays on the map when the cursor moves. The Coodinates: Secondary field lets you pick a different setting to use in an info field.

Option	What it does
Coordinates: Primary	Degrees; Degrees, Minutes; Deg, Min Sec; UTM/UPS; or USNG/MGRS.
Datum: Primary	Various. The default datum is WGS84.
Coordinates: Secondary	UTM/UPS; Degrees; Degrees, Minutes; Deg, Min, Sec; or USNG/MGRS.
Datum: Secondary	Various.
Measures	Statute Miles, Kilometers, Nautical Miles/Feet, or Nautical Miles/Meters.
Pressure	Inches or Mercury, Millibars, or Pascals.
Bearing	True or Magnetic. True represents the true location of the North Pole. Magnetic sets the device to use magnetic bearings; this is useful when comparing the device with a digital compass for use with maps that have magnetic declination built into the map grid.
Restore Default Settings	Restores the default unit settings.

Page Order

You can change which pages display when you press the **PAGE** button and the order in which they display. You cannot remove the Map Page from the **PAGE** button order.

From the Settings Page, select **Page Order.**

To	Do this
Add or remove a page from the **PAGE** button order	Select or clear the check box next to page.
Change the page order	Highlight the item you want to move, then use the arrows on the right side of the screen to move the page up or down in the list.
Restore Default Settings	Restore the default page order settings.

Owner Information

Use the Owner Information screen to enter text that identifies your device.

From the Settings page, select **Owner Information**.

To	Do this
Enter owner information	Press **ENTER** to open the keyboard and edit the text area.
Display Info at Startup	Select the check box if you want the owner information to display when you turn on the device. The Owner Information screen displays after the Welcome screen.

About this Device

To view the serial number for downloading maps and the build/version number for the device's firmware, go to the **Settings > About this Device**. To view license information, highlight **License** and press **ENTER**.

Restore Default Settings

To restore all of the Settings Page options at the same time, go to **Settings > Restore Default Settings**. To restore default settings for a specific options page, select **Restore Default Settings** on that page.

Restore Factory Settings

To reset all the settings on your device to the "out-of-box" status and delete all unsaved tracks, routes, waypoints, and geocaches in memory, go to **Settings > Restore Factory Settings**. Maps you have added to the device will not be deleted.

File Management

Waypoints (including geocaches) and tracks are managed on the PN-60 using GPX (GPS Exchange Format) files.

A GPX file can store location, elevation, and time information and is used to transfer data between your PN-60 and your computer. GPX files can be saved to the PN-60's internal drive or on an SD card in the device.

Tip On the Waypoints, Geocaches, Tracks, and Profile pages, press **MENU** and select **File** to view the available file management options. For more information about the options available on each page, see that section of the manual.

Creating a New GPX File on the PN-60

When you save a track, a GPX file is created.

When you mark a waypoint or geocache, if a waypoint file is open, the new waypoint is saved to the open file. If a waypoint file is not open, a new file is created.

Syncing GPX Files

- **Earthmate GPS Sync**—With DeLorme Topo North America 9.0, you can quickly send GPX or LOC files from your desktop to the PN-60's internal memory or an SD card that is in the device or in an SD card reader. When you return from your trip, you can send files back to the desktop to keep all your data in sync.
  For more information about Earthmate GPS Sync, see the Help in DeLorme Topo North America 9.0.
  Note that LOC files will be converted to GPX files during sync.
- **DeLorme Cache Register**–Use Cache Register to sync Geocaching.com Pocket Query GPX files with your device. For more information, see *Geocaches Page* on page 33.
- **Manual Transfer**—If you are not using DeLorme Topo North America, on the device go to **Settings > Connect to Computer > When Connected > Open SD Card** or **Open Internal Drive**. Then, connect the PN-60 to your computer with the USB cable and drag and drop GPX files into the Waypoints or Tracks folder. You can also use an SD card with an SD card reader.

Transferring Map Files

With Earthmate GPS Sync in DeLorme Topo North America, you can send map packages between your desktop and the PN-60's internal memory or to an SD card in the device or in an SD card reader.

Tip Use the SD card reader to quickly transfer large maps. Send maps you use frequently to the device's internal memory.

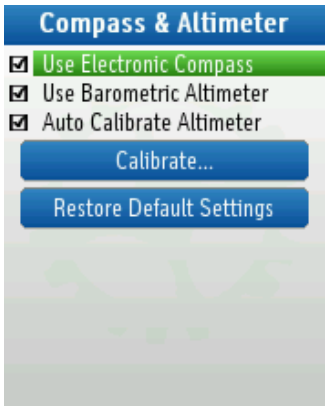
Compass and Altimeter Calibration

The PN-60 comes equipped with two sensors; an electronic compass and a barometric altimeter.

- The electronic compass works when the PN-60 is moving at less than 1.5 miles per hour. The compass readings calculated from GPS information are accurate only when the device is moving.
- The barometric altimeter uses the elevation adjusted to mean sea level and barometric pressure to provide more accurate elevation readings than the calculated GPS elevation provides.

Changes in weather patterns and geographic locations can cause errors in sensor readings. Calibrating the sensors ensures that they record and display accurate data on the device and record accurate data in the track file.

The Calibrate option is available from the Satellite Page and the Compass Page, and is under the Compass & Altimeter option on the Settings Page. In addition, from the Settings > Compass & Altimeter menu, you can enable or disable the electronic compass, barometric altimeter, and the auto-calibrate barometer options , or restore the default settings.



Compass Calibration

- Calibrate the electronic compass the first time you use the PN-60.
- Make sure you are outside and away from magnetic fields, such as those caused by vehicles and power lines, when you calibrate the compass.
- Calibrate when you change the batteries. Batteries, even those of the same type, have unique magnetic fields that affect the accuracy of the electronic compass. The device periodically checks the compass accuracy; if it is poor, "Poor Accuracy" appears in the bottom right corner of the Compass Page and a red exclamation point displays in the Heading info field. If the warning does not go away, try calibrating the compass.

To calibrate the compass

1. From the Satellite Page or the Compass Page, go to **MENU > Calibrate > Calibrate Compass**.
   OR
   From the Home Page, go to **Settings > Compass & Altimeter > Calibrate > Calibrate Compass**.
2. Follow the on-screen instructions to calibrate the compass.

Altimeter Calibration

There are three options for calibrating the altimeter. By default, the device is set to auto-calibrate the altimeter using GPS elevation; however, manual calibration using the known elevation or barometric pressure provides greater accuracy.

Auto-calibration uses the average GPS elevation as a basis for the barometric elevation. Adjustments are made to take into account changes over time in the barometric pressure, unrelated to changes in elevation. As the elevation adjusts (typically in 2-3 minutes), "Calibrating" displays in the bottom right corner of the Satellites Page. If you are using the Elevation: Barometer info field on any page, it displays a red exclamation point.

Note that the unit settings used in the Known Elevation and Known Pressure fields are from the units set on your device. To change the units, go to **Settings > Units > Pressure**.

To calibrate the altimeter

1. From the Satellite Page or the Compass Page, go to **MENU > Calibrate > Calibrate Altimeter.**
   OR
   From the Home Page, go to **Settings > Compass & Altimeter > Calibrate > Calibrate Altimeter**.
2. Select a calibration method.
   - **Known Elevation**–The actual elevation at your location.
   - **Known Pressure**–The barometric pressure (adjusted for sea level) for your location.
   - **GPS Elevation**–The GPS elevation calculated by the device.
3. If you selected Known Elevation or Known Pressure; to edit the field, press **ENTER** and use the arrow keypad to make changes. When you are finished editing, press **ENTER**.
4. Select **Calibrate**, and when you see the successful calibration message, press **ENTER**.

Info Fields

Info fields are used to provide information you need when using the PN-60. On the Map, Compass, Trip Info, and Profile Pages, you can customize the info fields. For more information, see ***Info Fields*** on page 8.

Notes

- Info field labels may be abbreviated; for example, Velocity Made Good is labeled VMG.
- Time is expressed as hours:minutes AM/PM. Go to **Settings > Time** to change the time format (12 hour/24 hour) and to turn Daylight Saving Time on or off.
- Dates are expressed as day-month-year (for example, 01-DEC-11).
- When information is unavailable, the info field contains dashes.
- You can change the unit of measure for many info fields; the location on the Settings Page for changing the settings is indicated. For more information, see ***The Settings Page*** on page 53.

Info Field	Description
Back on Course	The direction of travel needed to return to the route while continuing in the direction of the destination; expressed in degrees. (Units > Bearing)
Battery Life	The percentage of battery power that remains. (System > Battery Type)
Bearing	The direction of travel from the current location to the destination (finish or next stop); expressed in degrees. A green arrow points in the direction of the next waypoint or route point. The arrow is green when the device is moving and gray when no movement is detected. (Units > Bearing)
Coordinates: Primary	The primary coordinates format for the current GPS location, cursor position, or map center in the primary format. The default is Lat/Lon. (Units > Coordinates: Primary)
Coordinates: Secondary	The secondary coordinates format for the current GPS location, cursor position, or map center in the secondary format. The default is UTM/UPS. (Units > Coordinates: Secondary)
Course	The direction of travel on a route from the starting location to the destination (finish or next stop); expressed in degrees. (Units > Bearing)
Device Odometer	The total distance traveled in all trips. (Units > Measure)
Distance: Climbing	Profile Page only. The cumulative linear distance spent in increasing elevation. (Units > Measure)
Distance: Descending	Profile Page only. The cumulative linear distance spent in decreasing elevation. (Units > Measure)
Distance: Linear	Profile Page only. The cumulative linear distance from the start to the point of reference, not taking into account distance caused by elevation changes. (Units > Measure)
Distance: Terrain	Profile Page only. The cumulative distance along the ground, including any distance increases caused by changes in elevation. (Units > Measure)
Distance to Finish	The distance from the current location to the route finish. (Units > Measure)
Distance to Next Stop	The distance from the current location to the next stop in the route. (Units > Measure)
Distance to Next Turn	The distance from the current location to the next turn in the route. (Units > Measure)
Elevation	The altitude (height) above or below sea level. (Units > Measure)

Info Field	Description
Elevation: Barometer	The altitude (height) above or below sea level based on the barometric altimeter reading. If the altimeter is calibrating, a red exclamation point displays. (Units > Measure)
Elevation: Climbing	Profile Page only. The cumulative elevation gained while climbing; expressed in distance. (Units > Measure)
Elevation: Descending	Profile Page only. The cumulative elevation lost while descending; expressed in distance. (Units > Measure)
Elevation: GPS	The altitude (height) above or below sea level based on the GPS reading; expressed in distance. (Units > Measure)
Elevation: Maximum	The maximum elevation achieved; expressed in distance. (Units > Measure)
Elevation: Minimum	The minimum elevation achieved; expressed in distance. (Units > Measure)
Elevation: Net Gain	Profile Page only. The net change in elevation from the start to the point of reference; expressed in distance. (Units > Measure)
ETA at Finish	The estimated time of arrival at the route finish; expressed as hours:minutes AM/PM, based on the device time. (Units > Time)
ETA at Next Turn	The estimated time of arrival at the next turn in the route; expressed as hours:minutes AM/PM, based on the device time. (Units > Time)
ETA at Next Stop	The estimated time of arrival at the next stop in the route; expressed as hours:minutes AM/PM, based on the device time. (Units > Time)
Finish	The Finish label as it appears in the route directions.
GPS Accuracy	The calculated accuracy of the GPS; expressed in distance. (Units > Measure)
GPS Status	The current status of your GPS device. No Fix, 2-D, or 3-D. WAAS below the status indicates a WAAS fix. (Settings > System > GPS Setting and WAAS)
% Grade	The incline of the terrain expressed as a percentage (the rise in elevation over the distance traveled multiplied by 100).
% Grade: Average	The average percent grade from the start to the point of reference.
Heading	The current direction of travel; expressed in degrees. If electronic compass accuracy is poor, a red exclamation point displays. (Units > Bearing)
Moonrise/Moonset	The time of day at which the moon will rise and set, based on GPS location or current map center. (Units > Time)
Next Stop	The label for the next stop as it appears in the route directions.
Next Turn	The label for the next turn as it appears in the route directions. Also displays an arrow showing the direction of the turn/route direction information.
Next Turn Arrow	The arrow representing the next turn as it appears in the route directions.
Off Course	The perpendicular distance between the current location and the route; expressed in distance. (Units > Measure)
Pressure: Ambient	The surrounding barometric pressure reading. (Units > Pressure)
Pressure: MSL	MSL is Mean Sea Level. The surrounding barometric pressure reading adjusted to the device's elevation reading. (Units > Pressure)

Info Field	Description
Speed	The current rate of travel for the device; expressed in distance/time. (Units > Measure and Time). An up arrow indicates you are going faster than the moving average, and a down arrow indicates you are going slower than the moving average.
Speed: Average	The average speed of the device including stop time; expressed in distance/time. (Units > Measure and Time)
Sunrise/Sunset	The time of day at which the sun will rise and set, based on GPS location or current map center. (Units > Time)
Time/Date	The time of day and date based on current GPS location. (Units > Time)
Time to Finish	The calculated time to the route finish based on road classifications and default speed settings. (Units > Time)
Time to Moonrise/set	The time remaining until the moon rises and sets, based on GPS location or current map center. (Units > Time)
Time to Next Stop	The calculated time to the next stop in the route based on road classifications and default speed settings. (Units > Time)
Time to Next Turn	The calculated time to the next turn in the route based on road classifications and default speed settings. (Units > Time)
Time to Sunrise/set	The time remaining until the sun rises and sets, based on GPS location or current map center. (Units > Time)
Trip: Odometer	The total distance the GPS device has been moving since trip info was reset. (Units > Measure)
Trip: Time Moving	Total time GPS device has been moving since trip info was reset. (Units > Time)
Trip: Time Stopped	The total time the GPS has been tracking but not moving in the current trip, since the last time trip info was reset. (Units > Time)
Trip: Time Total	The total time the GPS has been tracking, both moving and stopped. (Units > Time)
Velocity Made Good	May be abbreviated as VMG. The component of the current speed that is in the direction of the route destination; expressed in distance per unit of time. (Units > Measure and Time)
Vertical Speed	The current rate of vertical travel for the device; expressed in distance per unit of time. (Units > Measure and Time)

Specifications

- Case: IPX-7 waterproof, impact-resistant, and rugged
- WAAS-enabled; position accuracy < 3 meters
- Operating temperature range:-4°F to +167°F (-20°C to +75°C)
- Storage temperature range:-49°F to +167°F (-45°C to +75°C)
- 3-axis electronic compass with accelerometer
- Barometric altimeter
- Power:
  - » Full power: 17 hours with 2 AA alkaline batteries; 29 hours with 2 AA lithium batteries [450mW typical (600mW with full backlight)]
  - » Power save: 30 hours with 2 AA alkaline batteries; 50 hours with 2 AA lithium batteries [< 270mW]
- Active memory holds 20,000 track points:1,500 waypoints; 100 routes; store unlimited tracks and waypoints in internal memory or on SD card.

PN-60/60w Wireless Radio

- Radio Technology: IEEE 802.15.4 compliant
- Transmission Bit Rate: 250kb/sec (maximum)
- Frequency Spectrum: 2.4GHz unlicensed band
- Transmission Power (peak): 10mW

Copyright Information

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FCC Certification

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC/IC Notice

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) this device may not cause harmful interference, and

(2) this device must accept any interference received, including interference that may cause undesired operation.

FCC ID: UTNPN60W403M

This Class B digital apparatus complies with Canadian ICES-003.C'et appareil numerique de la classe B est conforme a la norme.

NMB-003 du Canada

IC: 6853A-PN60W403M

Cautions and Warnings

Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended. Dispose of used batteries according to the manufacturer's instructions.

Do not damage the rechargeable lithium-ion battery. A damaged battery can cause an explosion or fire, and can result in personal injury and/or property damage.

Limited Warranty

DeLorme warrants that your Earthmate PN-60/60w GPS will be free from defects in materials and workmanship for 1 year from the date of purchase. If your Earthmate PN-60/60w GPS fails in normal use, DeLorme will, at its sole option, either repair or replace the unit. DeLorme reserves the right to either repair or replace the unit with a new or refurbished unit at its sole discretion.

Such repairs or replacements will be made at no charge for labor or materials; however, the customer will be responsible for any shipping charges incurred to send the device to DeLorme. The repaired or replaced product will be warranted for 90 days from the date of return shipment, or for the balance of the original warranty, whichever is longer. This warranty does not cover failures due to abuse, misuse, accidents, or unauthorized disassembly or modification. Any repairs not performed by DeLorme will void this warranty.

DELORME DISCLAIMS ANY LIABILITY FOR ANY SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, INCLUDING, BUT NOT LIMITED TO, LOSS OF REVENUES OR PROFITS, EVEN IF DELORME HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

THIS LIMITED WARRANTY CONTAINED HEREIN IS IN LIEU OF ALL OTHER EXPRESS WARRANTIES. ANY AND ALL IMPLIED WARRANTIES, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, SHALL LAST FOR 1 YEAR.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state. Some states do not allow the exclusion or limitation of relief such as incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you.

This warranty applies to the original purchaser of the product ONLY.

Be sure to retain the sales receipt proving the date of your original purchase. This will be needed if warranty service is ever required. DeLorme reserves the right to refuse warranty if a receipt is not provided or if the receipt is incomplete/illegible.

Service Plan

Before a product can be returned, you must contact DeLorme Support at 207-846-8900 to determine if a return is necessary and request a Return Material Authorization (RMA) tracking number.

You must provide the following information to obtain warranty service:

- A copy of the sales receipt from the original retailer
- The serial number of the device
- The RMA tracking number that you received when you called DeLorme
- Your return shipping address
- Your daytime telephone number

If you have contacted DeLorme Technical Support and have been instructed to send the device in for warranty service, send the unit to:

DeLorme Earthmate PN-Series
Service Department
2 DeLorme Drive
Yarmouth, ME 04096 USA

You must use a shipping service that provides tracking information.

For the latest warranty and repair information, visit **support.delorme.com**.

Resources

User Manuals

manuals.delorme.com

Customer Forums

forum.delorme.com

Technical Support Knowledge Base

support.delorme.com

Customer Service and Support

Call Customer Service or Tech Support Monday-Friday, 9:00 a.m.– 8:00 p.m. Eastern Time (US & Canada).

Customer Service

For questions on returns, order status, or shipments.

Email: sales@delorme.com

Phone: 800-511-2459 (outside the U.S. call 207-847-1165)

Tech Support

Email: tech@delorme.com

Phone: 207-846-8900

Index

A

About this Device 57
Activities Page 52
Altimeter
  Calibrate 19, 20, 59–60
  Elevation 19
  Elevation Info Fields 61
  Settings 55
Average a geocache 36
Average a waypoint 32

B

Back on track 38–39, 40
Base map 12, 13, 14
Batteries
  Charge 4, 53
  Indicator 4, 9, 53, 61
  Install 4
  Type 4, 53, 59
  Warning 65
Bearing arrow 20, 56, 61
Buttons 5–7

C

Compass
  Bearing arrow 20
  Calibrate 20, 55, 59
  Electronic 20
  Settings 55
Compass Page 20–21
Connect to Computer settings 54
Contact info 66
Contact information 66
Course 61

D

Data Layering 12–13
Data Management 13–14
Demo Mode 5, 53
Directionsn page 41
Disable/turn off GPS 19, 53
Display settings 54

E

Elevation 19, 44, 46, 47, 59

F

File management 58
Find Page 24–28

G

Geocaches
  Add to device 34–35
  Average 36
  Delete 35
  Description 35
  Edit 35
  Field Notes 37
  Files 34
  Hint 35
  Log find 37
  Move 36
  Navigate to 37
  Project 36
  Sort list 33–34
  Symbols 34
  View on map 35
Geocaches Page 33–37
Getting started 3–8
GPS
  Accuracy 19
  Disable/turn off 19, 53
  Settings 53
  Signal 18
  Status 9, 18
GPX files 58

H

Heading 62–63
Home Page 9
Hunt/Fish Page 51
Hybrid map 15

I

Imagery 12, 13, 14
Info Fields
  Manage 8
  Table 61–63

K

Keyboard 7

M

Map cursor 10–11
Map data layering 12–13
Map Library 14
Map Page 10–17
Map Setup 12–16
Map transfer 14, 58
Mark a waypoint 6, 30–31
Measure distance/area 11–12
Memory use, view 53

N

Navigating 8
Navionics 16–17

O

Orientation, map 14–15
Owner information 57

P

Page order settings 57
Panning the map 10–11
Points of interest (POIs)
  Find 26
Power on/off 5
Profile
  Active track 43, 47
  Open track file 47
  Panning/zooming 47
  View 46–47
Profile Page 46–47

R

Resources 66
Restore default device settings 57
Restore factory settings 57
Rotate screen 54
Routes
  Create 28, 31, 35, 39–40
  Delete 41
  Directions page 41
  Options 40
  Reverse 40
  Settings 38–39
  Simulate 41
  View 40
Routes Page 38–41

S

Satellites Page 18–19
Scale settings 15
SD card 3
Search
  Methods 24
  Results 27–28
Sensors 59–60
Serial number 57
Serial port 54
Service Plan 66
Set current location 19
Settings Page 53–57
Simulate route navigation 41
Sound settings 55–56
Specifications 64
Sun/Moon Page 48–49
Symbols
  Chart. *See* end of manual
  Geocache 34
  Waypoint 30
System settings 53

T

Tides Page 50
Time settings 56
Tracking 8
Tracks
  Clear 43
  Files 44
  Follow 43, 44

Profile active track 43
Profile open track file 44
Record 43
Reverse 44
Save 43
Settings 42–43
View on map 44
Tracks Page 42–45
Transfer maps 14
Trip Info Page 22–23

W

WAAS 18–19, 53
Warranty 65
Waypoints
Average 32
Comment 31
Delete 31
Details 31
Edit 31
Files 29–30
Mark 30–31
Move 32
Navigate to 31
Project 32
Sort the list 29–30
Symbols 30
View on map 31
Waypoints Page 29–32
Wireless settings 55

Z

Zoom in/out
Map 10–11
Profile 47

Earthmate® PN-Series Symbols

DeLorme

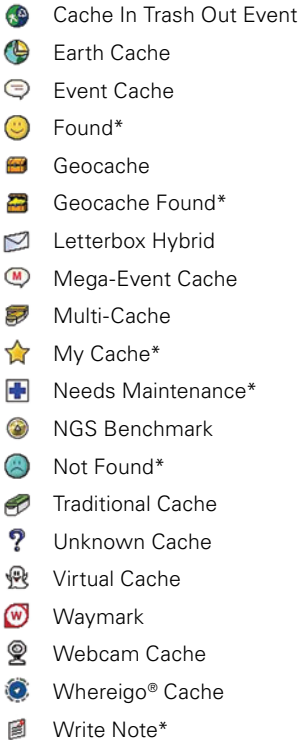
Waypoint Symbols

- American Flag
- Anchor
- Animal Tracks
- Arrow, Down-left
- Arrow, Down-right
- Arrow, Down
- Arrow, Left
- Arrow, Right
- Arrow, Up-left
- Arrow, Up-right
- Arrow, Up
- Ballpark
- Beach
- Bear
- Bicycling
- Binoculars
- Birch Tree
- Bird Tracks
- Bird
- Boat Launch
- Bridge
- Building
- Buoy
- Camera
- Camper
- Canoeing
- Car
- Cave
- Cemetery
- Church
- Cross-country Skiing
- Dam
- Danger
- Deciduous Tree
- Deer Tracks
- Deer
- Dining
- Disabled**
- Diver Down
- Dog Sledding
- Downhill Skiing
- Drinking Water
- Duck
- Enabled**
- Evergreen Tree
- Exclamation
- Exit
- Final Location **
- Fire Hydrant
- Fire
- First Aid
- Fish
- Fishing Pole
- Flower Garden
- Four-wheel ATV
- Gas Station
- Glider Area
- Golf Course
- Health Facility
- Heliport
- Hiking
- House
- Ice Fishing Trap Set
- Ice Fishing Trap Up
- Ice Skating
- Information
- Jeep
- Kayaking
- Lighthouse
- Lodging
- Military Airport
- Military Base
- Mining
- Money
- Moose
- Motor Home
- Mountain
- Parking
- Parking Area **
- Picnic Table
- Police
- Post Office
- Powerboat
- Private Airport
- Public Airport
- Question to Answer **
- Radio Tower
- Railroad Crossing
- Reference Point **
- Restroom
- Sailboat
- School Bus
- School
- Shelter
- Shipwreck
- Shooting
- Shower
- Snowmobile
- Stages of a Multi-Cache **
- Stop
- Swimming
- Telephone
- Tent
- Toll Booth
- Tow Truck
- Traffic Light
- Trailhead **
- Truck
- Tunnel
- Waterskiing
- Number
  white number on a blue background
  (0-9)
- Letter
  white letter on a red background
  (A-Z)
- Flag
  (available in red, dark red, yellow, dark yellow, green, dark green, blue, dark blue, turquoise, dark turquoise, gray, and dark gray)
- Push Pin
  (available in red, dark red, yellow, dark yellow, green, dark green, blue, dark blue, turquoise, dark turquoise, gray, and dark gray)
- Dot
  (available in red, dark red, yellow, dark yellow, green, dark green, blue, dark blue, turquoise, dark turquoise, gray, and dark gray)
- Small Dot
  (available in red, dark red, yellow, dark yellow, green, dark green, blue, dark blue, turquoise, dark turquoise, gray, and dark gray)
- Green Star
- Red X
- Turquoise Circle
- Yellow Square

Earthmate® PN-Series Symbols

DELORME

Geocache Symbols



- Cache In Trash Out Event
- Earth Cache
- Event Cache
- Found*
- Geocache
- Geocache Found*
- Letterbox Hybrid
- Mega-Event Cache
- Multi-Cache
- My Cache*
- Needs Maintenance*
- NGS Benchmark
- Not Found*
- Traditional Cache
- Unknown Cache
- Virtual Cache
- Waymark
- Webcam Cache
- Whereigo® Cache
- Write Note*

Notes:

Waypoints with geocache symbols appear on the Geocaches Page and are further sorted into the Logged and Not Logged pages.

For all waypoints and geocaches, when an imported symbol is unavailable on the device, the red dot is used.

*Geocaches with these symbols appear on the Logged Geocaches page.

** Waypoints with these symbols are child waypoints associated with a geocache.